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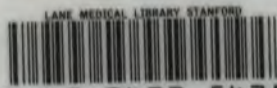
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ÆSTHETICS, DREAMS

AND

ASSOCIATION OF IDEAS

BY

JAMES SULLY

AND

GEO. C. ROBERTSON

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ÆSTHETICS; DREAMS; AND ASSOCIATION OF IDEAS.

By JAMES SULLY and GEO. CROOM ROBERTSON.

ÆSTHETICS.

BY JAMES SULLY, M.A.

ÆSTHETICS is the term now employed to designate the theory of the Fine Arts—the science of the Beautiful, with its allied conceptions and emotions. The province of the science is not, however, very definitely fixed, and there is still some ambiguity about the meaning of the term, arising from its etymology and various use. The word æsthetic, in its original Greek form (*αισθητικός*), means anything that has to do with perception by the senses, and this wider connotation was retained by Kant, who, under the title Transcendental Æsthetic, treats of the *a priori* principles of all sensuous knowledge. The limitation of the term to the comparatively narrow class of sensations and perceptions occupied with the Beautiful and its allied properties is due to the Germans, and primarily to Baumgarten, who started from the supposition that, just as truth is the end and perfection of pure knowledge or the understanding, and good that of the will, so Beauty must be the supreme aim of all sensuous knowledge. Yet, spite of these sources of vagueness in the subject and its name, some considerable part of the theory can be looked upon as pretty clearly defined, and it be possible, by means of careful

reflection on this ascertainable quantity, to indicate, roughly at least, the extent and boundaries of a complete system of æsthetic doctrine.

A very brief survey of what has been written under the name æsthetics is sufficient to show that it includes, as its first and foremost problem, the determination of the nature and laws of Beauty, including along with the Beautiful, in its narrower signification, its kindred subjects, the Sublime and the Ludicrous. To discover what it is in things which makes them beautiful or ugly, sublime or ludicrous, is one constant factor in the æsthetic problem. Intimately connected with this objective question is the subjective and psychological inquiry into the nature of the feelings and ideas that have beauty for their object. Further, it will be found that all attempts to construct a complete æsthetic theory aim at determining the highest ends of the Fine Arts (which obviously concern themselves largely, if not exclusively, with the Beautiful), and at marking out the distinctions and tracing the dependencies of natural and artistic beauty. All this part of the field of æsthetic inquiry seems fairly agreed on, and it is only when we approach other sides of the Fine Arts that the precise scope of the science appears obscure. But while there is this measure of agreement as to the proper subject matter of æs-

thetics, we find two diametrically opposed methods of approaching it, which distinctly color all parts of the doctrine arrived at, and impose different limitations to the boundaries of the subject. The first is the metaphysical or *à priori* method; the second the scientific or empirical method. The one reasons deductively from ultra-scientific conceptions respecting the ultimate nature of the universe and human intelligence, and seeks to explain the phenomena of beauty and art by help of these. The other proceeds inductively from the consideration of these phenomena, as facts capable of being compared, classified, and brought under certain uniformities. At the same time, it must not be supposed that either method is customarily pursued in complete independence of the other. The most subtle exponent of transcendentalism in art appeals to generalizations drawn from the facts of art; nor have the professedly scientific critics often abstained from introducing conceptions and hypotheses of a metaphysical character.

(A.) METAPHYSICAL PROBLEMS.

Metaphysical speculation in æsthetics centers about the objective nature of beauty, and arises somewhat in the following manner:—The appreciation of the Beautiful is a mode of perception. In estimating a beautiful landscape or a beautiful statue, the mind perceives the beauty as a property of the object. It is, moreover, a single property; the name beautiful always denoting the same essential thing, whatever this may be. Now we find that it is not a simple property of matter known through one particular class of sensations, as color; and the question arises, what it really is in itself, whether inherent in and inseparable from matter, or something superior to it, and if so, how revealed through it. The directions of this inquiry have been almost as numerous as the systems of metaphysical thought. On

the supposition of a real substance, matter, independent of all intelligence, human or divine, writers have attempted to discover the essential principle which beautifies it. It has been universally considered by metaphysicians that matter in itself is devoid of beauty, if not positively ugly, and the only question arises as to the extraneous principle which imparts beauty to it. This has been conceived either as a simple force distinct from matter, yet setting it in motion, vivifying it, and reducing it to forms, as by Lévêque; or, as a divine being, whose volition directly invests material objects with all their beautiful aspects, as by Reid; or, lastly, as self-existent forms or ideas superinduced upon matter, which are in truth the beauty of objects, as by Plato and his modern followers.

In the prevailing German systems of æsthetics, which are based on an ontological idealism, the independent existence of matter has been denied. These writers conceive an absolute Thought or Idea as the ultimate reality, of which matter and consciousness are but the two sides. Matter is conceived as the negative or limiting principle in the action or self-movement of the Absolute. The problem of objective beauty becomes on this hypothesis the determination of the particular mode in which the Beautiful is a manifestation of the supreme thought; for the Good and the True are equally revelations of the Unconditioned, and it is necessary to mark off beauty from these. Various definitions of the Beautiful, based on this mode of conception, may be found in the systems of Hegel, Weiss, and the Hegelians. The second great problem in the metaphysics of æsthetics is to co-ordinate the species of the æsthetic genus, namely, the Beautiful (in its narrow sense), the Ugly, the Sublime, and the Ridiculous. This has been undertaken by the Hegelians, and their attempts to construct what they call the dialectics of æsthetics are among the most curious products of

metaphysical thought. It being assumed that there is some one ontological process running through every manifestation of the æsthetic Idea, these writers have sought to determine how each of the subaltern notions is related to this process. The last problem in the scheme of metaphysical æsthetics relates to the nature and functions of Art, looked at on one side as a reproduction in altered form of the beauty of Nature, and, on the other, as the conscious product of æsthetic intuition in the human mind. First of all, the arts are appreciated and classified according to the several modes in which they body forth the Idea to our minds. Secondly, since the Absolute may be spoken of as revealing itself to human intelligence, so human intelligence may be looked on as groping through long ages after the Absolute, and thus the historical evolution of art finds its place in a complete metaphysic of æsthetics. In concluding this preliminary sketch of the metaphysical systems, it should be added that they can be adequately estimated and criticised only in connection with the whole systems of thought of which they are organic parts. Within the scope of a purely scientific criticism it is only possible to point out any inconsistencies in the application of these ideas to beauty and art, and to show how much or how little they effect, as hypothetical instruments, in helping us more clearly to understand the phenomena.

(A.) SCIENTIFIC PROBLEMS.

In the scientific discussion of æsthetic subjects, the antithesis of subject and object in human cognition is accepted as a phenomenal distinction, without any inquiry into its ontological meaning. Inquirers no longer discuss the essence of beauty, looked on as a transcendental conception above all experience, but seek to determine in what the Beautiful, as a series of phenomena, clearly and

visibly consists. Æsthetic speculation becomes, accordingly, more purely psychological. First of all, the unity of beauty is questioned. It is asked whether all objects which appear beautiful are so because of some one ultimate property, or combination of properties, running through all examples of beauty, or whether they are so called simply because they produce some common pleasurable feeling in the mind. This is a question of induction from facts and consequent definition lying at the very threshold of æsthetic science. It has been most vigorously disputed by British writers on the subject, and many of them have decided in favor of the plurality and diversity of elements in beauty. Again, it has been asked in which category of our experience, objective or subjective, beauty originates. By some it has been referred to an objective source, whether to sensation, as a direct result of physiological action, as by Burke, or to something distinctly perceived by means of sensation, as a certain relation of unity, symmetry, etc., among the parts of an object, its colors, forms, and so on, as probably by Aristotle, Diderot, Hogarth, and most writers. By others the source of beauty has been sought in the inner life of the mind itself, in certain ideas and emotions which have become reflected on external objects by association. This is the doctrine of Alison. A third class recognize both of these sources, attributing the effects of beauty partly to the pleasurable effects of external stimulation, partly to the activities of perception, and partly to multitudinous associations of ideas and feelings from past experience. This class includes Dugald Stewart, Professor Bain, and Mr. Herbert Spencer. A third question in the general scientific theory of beauty which is closely related to the last and largely determined by it, is the precise nature of the mental faculty or activity concerned in the perception and appreciation of the Beautiful. This, too, has been widely

discussed by English writers,—answers to the other two questions frequently appearing as the necessary implications of the solution of this one. By those who affirm that beauty is a simple property or conjunction of properties in external objects, the subjective perception of this property has been regarded either as a unique faculty (the internal sense), or as the rational principle acting in a certain way. By the school of Alison, who find the source of beauty in a certain flow of ideas suggested by an object, the perception of the same, as a property of the object, would be explained as the result of inseparable association, producing a kind of momentary delusion. And this same effect of association, in producing an apparent intuition of one simple property, would be made use of by those later writers who resolve the nature of beauty into both objective and subjective elements. It is noticeable, too, that while some writers have treated the appreciation of beauty as purely intellectual, others have confined themselves to the emotional element of pleasure. With respect to the Ludicrous and the Sublime, as distinguished from the Beautiful, there seems to have been a tacit agreement that both of these are unique and single properties, whether originally in the object of sense, or reflected on it from the mind; and various theories have been suggested in explanation of the characteristic effects of these properties on human sensibility and thought.

What strikes one most, perhaps, in these discussions is the vagueness due to the great diversity of conception as to the real extent of the Beautiful—the number of objects it may be supposed to denote. While one class of writers appears to limit the term to the highest and most refined examples of beauty in nature and art, others have looked on it as properly including the lower and more vulgarly recognized instances. There is certainly a great want of definiteness as to the legitimate scope

of æsthetic theory. It will be seen, too, how closely this point bears on the question of the relativity of æsthetic impressions, whether there is any form of beauty which pleases universally and necessarily, as Kant affirms. The true method of resolving this difficulty would appear to be to look on æsthetic impressions more as a growth, rising, with the advance of intellectual culture, from the crude enjoyments of sensation to the more refined and subtle delights of the cultivated mind. The problem of the universal and necessary would then resolve itself into an inquiry into a general tendency. It would be asked what kinds of objects, and what elements of sensation, idea, and emotion, tend to become conspicuous in æsthetic pleasures, in proportion as the mind advances in general emotional and intellectual culture. Another defect in nearly all the theories of the Beautiful that have been proposed, refers to the precise relation of the intellectual element in the æsthetic impression. In opposing the narrow view, that the appreciation of beauty is a purely intellectual act, a cold intuition of reason, writers have fallen sometimes into another narrowness, in resolving the whole of the effect into emotional elements, or certain species of pleasure. Unless beauty is, as Hutcheson affirmed, a simple property of objects like color, the perception of it as objective, which all must allow to be a mental fact, can only be explained by means of certain intellectual activities, by force of which the pleasurable effects come to be referred to such a seemingly simple property. The solution of this point would doubtless be found in a more complete discussion of the perceptive or discriminative and assimilative activities of the intellect which are invariably called into play by complex objects, and which correspond to the attributes of proportion, unity, etc., on which so much has been laid by the intuitionists, but

must be incomplete which does not give prominence to those more subtle and exalted intellectual activities that are involved in the imaginative side of æsthetic appreciation, as in detecting the curious half-hidden implications which make up the essence of a refined humor, in constructing those vague yet impressive ideas which enter into our intuition of sublimity and infinity, and even in appreciating such seemingly simple qualities as purity of color and tone, or the perfectly graduated blending of two adjacent colors. Such activities of the mind constitute, among other things, the symbolic aspect of the Beautiful, and give, as Mr. Mill suggests, a basis of truth to such seemingly fanciful notions respecting the meaning of beautiful qualities as one finds in the works of Mr. Ruskin.

But comparatively little has been done in a purely scientific manner to determine the nature and functions of Art so as to fix the relations of the different arts to simple or natural beauty. Aristotle supplied a few valuable doctrines, which have been rendered still more precise by Lessing and others. Yet there seems even now no consensus of opinion as to the precise aims of art, how far it has simply to reproduce and constructively vary the beauties of nature, or how far to seek modes of pleasurable effect wider than those supplied by natural objects. A theory of art at all comparable in scientific precision to existing theories of morals has yet to be constructed. The few attempts to establish a basis for art of a non-metaphysical kind are characterized by great one-sidedness. Thus, for example, the theory that the function of art is to imitate nature, has been broached again and again with scarcely any reference to music, merely, as it seems, out of an impatience for some one defining property. Without attempting to sketch a complete doctrine of art, a suggestion may be offered as to the right direc-

the various emotional susceptibilities to which art can appeal must be collected, from a study both of mental phenomena as a whole, and of all varieties of pleasurable feeling actually ministered by the several forms of art. This would fix the end of the fine arts in the widest sense, marking it off from the ends of utility and morality. Secondly, the highest aims of art, or the ideal of art, would have to be determined by a consideration of the laws of compatibility and incompatibility among these various orders of gratification, the requirements of quantity, variety, and harmony, in any lofty æsthetic impression, and the relative value of the sensational, intellectual, and emotional elements in æsthetic effect. This part of the subject would include the discussion of the value and universal necessity of the real and the ideal in art, truth to nature and imaginative transformation. These conclusions would require verification by means of the widest and most accurate study of the development of the arts, in which could be traced the gradual tentative progress of the artistic mind toward the highest achievements of art, as well as the permanent superiority of all those forms of art which most clearly embody this tendency. This part of the theory of art would clearly connect itself with the problem of the general law or tendency in æsthetic development already referred to. The proper determination of these two ideas, the whole range of possible æsthetic delight, and the direction of the highest, purest, and most permanent delight of cultivated minds, would at once dispose of many narrow conceptions of art, by recognizing the need of the widest possible diversity and grades of artistic value, if only as experiments requisite to the discovery of its highest function. At the same time the meaning and limits of the universal and necessary in art would be defined, and the unsuggestive and dreary conflicts between an unbending absolutism and a lawless

inquiry. First of all, then, possible generalizations on

individualism shown to be irrelevant. The validity of canons of art, and their limitations, would in this manner be fixed, and the impatient exaltation of certain schools and directions of taste reduced to a modest assertion of a purely relative truth. The aims of art as a whole being thus determined, the next thing would be to define and classify the individual arts of painting, music, poetry, etc., according to their respective powers of embodying these aims. This would require a careful consideration of the material or medium of expression employed by each art, and the limitations imposed by it as to the mode of representation. The determination of this part of æsthetic theory, which Lessing commenced, would require not only technical but considerable psychological knowledge. Similarly, any conclusion arrived at on this subject would need to be verified by a reference to the history of the arts, as exemplifying both the successes of a right conception of the scope and possibilities of the particular art, and the failures resulting from a mistaken conception. Many other points, such as the nature of genius, the function and bounds of criticism, the relation of æsthetic culture to intellectual, moral, and social progress, would be included in a complete scheme of art doctrine.

(C.) HISTORY OF SYSTEMS.

In the following brief account of the most important contributions to æsthetic doctrine, only such writings will be recognized as aim at some general conception of Art and the Beautiful. Much that passes in current literature for æsthetic speculation, namely, a certain thoughtful way of criticising special works of art, is simply the application of recognized principles to new cases. Sometimes, however, in the hands of a philosophic critic the mere appreciation of a single poem or the works of a particular artist may become a luminous discussion of some general principle,

and this method of constructing æsthetic theory from the criticism of a single work or series of works was rendered very productive by Lessing.

I. *Greek Speculations.*—Ancient Greece supplies us with the first speculations on the Beautiful and the aims of the fine arts. Nor is it surprising that among a people so productive of noble artistic creations, and at the same time so speculative, numerous attempts to theorize on these subjects should have been made. We have in classic writings many allusions to works of an æsthetic character now lost, such as a series on poetry, harmony, and even painting, by Democritus. It is to be gathered, too, from Plato's Dialogues that the Sophists made the principles of beauty a special department in their teaching. The first Greek thinker, however, whose views on these subjects are at all known is Socrates. Accepting Xenophon's account of his views in the *Memorabilia* and the *Symposium*, we find that he regarded the Beautiful as coincident with the Good, and both of them as resolvable into the Useful. Every beautiful object is so called because it serves some rational end, whether the security or gratification of man. It looks as though Socrates rather disparaged the immediate gratification which a beautiful object affords to perception and contemplation, and emphasized rather its power of furthering the more necessary ends of life. Thus he said that pictures and other purposeless works of art, when used to adorn a house, hindered rather than furthered enjoyment, because of the space they took from useful objects. This mode of estimating the value of beauty is, however, no necessary consequence of the theory that the whole nature of beauty is to minister pleasure. It arises from undue attention to mere material comfort as a condition of happiness. The really valuable point which Socrates distinctly brought to light is the relativity of beauty. Unlike his illustrious disciple, he recognized no self-beauty (*αὐτὸ καλόν*) ex-

isting absolutely and out of all relation to a percipient mind.

Of the precise views of Plato on this subject, even if they were really formed, it is very difficult to gain a just conception from the Dialogues. In some of these, called by Mr. Grote the Dialogues of Research, as the *Hippias Major*, he ventures on no dogmatic theory of Beauty, and several definitions of the Beautiful proposed are rejected as inadequate by the Platonic Socrates. At the same time we may conclude that Plato's mind leaned decidedly to a theory of an absolute Beauty, this, indeed, being but one side of his remarkable scheme of Ideas or self-existing Forms. In the *Symposium* he describes how love (Eros) produces aspiration toward the pure idea of beauty. It is only this absolute beauty, he tells us, which deserves the name of beauty; and this is beautiful in every manner, and the ground of beauty in all things. It is nothing discoverable as an attribute in another thing, whether living being, earth, or heaven; for these are only beautiful things, not the Beautiful itself. It is the eternal and perfect existence contrasted with the oscillations between existence and non-existence in the phenomenal world. In the *Phædrus*, again, he treats the soul's intuition of the self-beautiful as a reminiscence of its præ-natal existence, undefiled by union with the body. With respect to the precise forms in which the idea of beauty reveals itself, Plato is very undecided. Of course his theory of an absolute Beauty is incompatible with the notion of its ministering simply a variety of sensuous pleasure, to which he appears to lean in the *Gorgias* and even the *Hippias Major*. Further, his peculiar system of ideas naturally led him to confuse the self-beautiful with other general conceptions of the true and the good,* and so arose the Platonic formula καλοκἀγαθία, expressive of the intimate union of the two principles. So far as his writings embody the notion of any

distinguishing element in beautiful objects, it is proportion, harmony, or unity among the parts of an object. The superior beauty of proportion is taught in the *Philebus*, and in the *Phædon* it is applied to virtue. As a closely-related view, we see, him emphasizing unity in its simplest aspect of evenness and purity, the need of variety being overlooked. Thus in the *Philebus* he states his preference for regular and mathematical forms, as the straight line and the circle. So he selected among colors pure white, among tones the pure and equal, and among impressions of touch the smooth. At the same time the Dialogues evince many other tentative distinctions in the Beautiful, as, for example, the recognition in the *Politics* of two opposed classes of beautiful things, those characterized by force and velocity, and those by a certain slowness and softness; which points to a contrast between the stimulative and the restful in sensation, since enlarged upon by English psychologists. Elsewhere he descants on the beauty of the mind, and seems to think, in the *Republic*, that the highest beauty of proportion is seen in the union of a beautiful mind with a beautiful body. In spite of his lofty theory of the origin and nature of beauty, Plato seems to have imperfectly appreciated the worth of art as an independent end in human life and culture. He found the end of art in imitation (μίμησις), but estimated the creative activity of art as a clever knack, little higher in intellectual value than the tricks of a juggler. He tended to regard the effects of art as devoid of all serious value, and as promoting indolence and the supremacy of the sensual elements of human nature. (See the *Sophistes*, *Gorgias*, and *Republic*.) Accordingly, in his scheme for an ideal republic, he provided for the most inexorable censorship on poets, etc., so as to make art as far as possible a mere instrument of moral and political training. As to particular arts, Plato appears to have allowed a cer-

tain ethical value to music, in combination with dance and song, if of a certain character, as expressing either the worthy and manly, or the quiet and orderly. With respect to poetry, his views, as expressed in the *Republic* and elsewhere, were very uncertain. Thus at times he condemns tragedy and comedy *in toto*; at other times he admits the claims of a lofty dramatic poetry. He seems not to have fully considered the aims and influences of painting and sculpture, which he constantly disparages.

A loftier conception of the aims of poetry was afforded by the strictures of Aristophanes in the *Frogs* and elsewhere. But the one Greek who, as far as we know, fully appreciated and clearly set forth the ends of the fine arts, considered, independently of ethical and political aims, as the vehicles to the mind of the ideas and delights of beauty, was Aristotle. Unlike Plato, he proceeded less metaphysically and more scientifically to investigate the phenomena of beauty by a careful analysis of the principles of art. In his treatises on poetry and rhetoric, he gives us, along with a theory of these arts, certain principles of beauty in general; and scattered among his other writings we find many valuable suggestions on the same subject. First of all, Aristotle ignores all conceptions of an absolute Beauty, and at the same time seeks to distinguish the Beautiful from the Good. Thus, although in the more popular exposition, the *Rhetoric*, he somewhat incorrectly makes praiseworthiness a distinguishing mark of the Beautiful, regarded as a species of the Agreeable or Desirable, he seeks in the *Metaphysics* to distinguish the Good and the Beautiful thus: the Good is always in action (*ἐν πράξει*); the Beautiful, however, may exist in motionless things as well (*ἐν ἀκινήτοις*). Elsewhere he distinctly teaches that the Good and the Beautiful are different (*ἕτερον*), although the Good, under certain conditions, can be called beautiful. He thus looked on the two spheres

as co-ordinate species, having a certain area in common. It should be noticed that the habit of the Greek mind, in estimating the value of moral nobleness and elevation of character by their power of gratifying and impressing a spectator, gave rise to a certain ambiguity in the meaning of τὸ καλόν, which accounts for the prominence the Greek thinkers gave to the connection between the Beautiful and the Good or morally Worthy. Aristotle further distinguished the Beautiful from the Fit, and in a passage of the *Politics* set Beauty above the Useful and Necessary. Another characteristic of the Beautiful fixed by this thinker in the *Rhetoric* is the absence of all lust or desire in the pleasure it bestows. This is an important point, as suggesting the disinterested and unmonopolizing side of æsthetic pleasure. The universal elements of beauty, again, Aristotle finds in the *Metaphysics* to be order τάξις, symmetry, and definiteness or determinateness (τὸ ὁρισμένον). In the *Poetics* he adds another essential, namely, a certain magnitude, it being desirable, for a synoptic and single view of the parts, that the object, whether a natural body or a work of art, should not be too large, while clearness of perception requires that it should not be too small. At the same time he seems to think that, provided the whole be visible as such, the greater magnitude of an object is itself an element of beauty. This is probably to be understood by help of a passage in the *Politics*, which lays down the need of a number of beautiful parts or aspects in a highly beautiful object, as the human body. With respect to art, Aristotle's views are an immense advance on those of Plato. He distinctly recognized, in the *Politics* and elsewhere, that its aim is simply to give immediate pleasure, and so it does not need to seek the useful like the mechanical arts. The essence of art, considered as an activity, Aristotle found in imitation, which, unlike Plato, he considers not as an un-

worthy trick, but as including knowledge and discovery. The celebrated passage in the *Poetics* where he declares poetry to be more philosophic and serious a matter (*σπουδαιότερον*) than philosophy, best shows the contrast between Plato and Aristotle in their estimates of the dignity of artistic labor. In the *Poetics* he tells us that the objects to be imitated by the poet are of three kinds—(1.) Those things or events which have been or still are; (2.) The things which are said to be and seem probable; (3.) The things which necessarily are (*εἶναι δεῖ*). The last points, as Schasler supposes, to the ideal character of imitation as opposed to mere copying of individual objects or events, and accounts for the lofty value assigned to it by Aristotle. More particularly the objects of imitation in poetry and music, if not in all art, are dispositions (*ἡθῆ*), passions, and actions. Aristotle gives us some interesting speculations on the nature of the artist's mind, and distinguishes two varieties of the poetic imagination—the easy and versatile conceptive power of a man of natural genius (*εὐφυής*), and the more emotional and lively temperament of an inspired man (*μανικός*). He gives us no complete classification of the fine arts, and it is doubtful how far his principles are to be taken as applicable to other than the poetic art. He seems, however, to distinguish poetry, music, and dancing—all of which are supposed to imitate some element of human nature, some feeling or action—by the means they employ, namely, rhythm, harmony, melody, and vocal sound. Painting and sculpture are spoken of as imitative arts, but their special aims are not defined. Architecture seems ignored by Aristotle as non-imitative. His peculiar theory of poetry can only be just glanced at here. Its aim, he says, is to imitate dispositions and actions. Metrical form is hardly looked on as an essential. Poetic imitation, as including the selection of the universal in human nature and history, is ably treated; and from

this part of Aristotle's theory all modern ideas of poetic truth are more or less derivable. He distinguishes, somewhat superficially, the epic poem, the drama, and a third variety not named, but apparently lyric poetry, by the manner in which the poet speaks in each variety, whether in his own person, or in that of another, or in both alternately. The epic and the dramatic poem require unity of action, a certain magnitude, with beginning, middle, and end, and also those changes of fortune and recognitions that make up the thrilling character of plot. The end of tragedy Aristotle defines as the effecting, by means of pity and fear, of a purification of these passions; and this is perhaps the point of greatest interest for æsthetics in the whole of his theory of poetry. Whether he is referring to any moral influence of tragedy on the emotions, bringing both fear and pity in the spectator's mind to their proper ethical mean, as Lessing and others conceive; whether he simply means the elimination of all painful ingredients in these feelings, either by the recognition of the imaginary nature of the evil represented, or by the simultaneous satisfaction of other and deeper feelings as moral approval or wide human sympathy; or, finally, whether by "purification" we are to understand the grateful relief by artificial means of a recurring emotion needing periodic vent, as Ueberweg argues,—this subtle point may be left to the student to decide. It would be interesting to know how far Aristotle attributed something analogous to this *κάθαρσις* to the other arts. In the *Politics* he certainly speaks of a purifying effect in certain kinds of music in quieting the wilder forms of excitement. Finally, it might perhaps be conjectured from his definition of the Ludicrous, as something faulty and disgraceful, yet free from pain, and not destructive, that he would find in the laughter of comedy something analogous to this purification, namely, the gradual resolution of the more

painful feelings of contempt or disgust into the genial moods of pure hilarity.

Omitting to notice the few valuable remarks on æsthetic subjects of the later Greeks and their Roman contemporaries, one may briefly refer to the views of the Alexandrian mystic and Neo-Platonist Plotinus, not only because of their intrinsic interest, but on account of their resemblance to certain modern systems. His theory is to be found in an essay on the Beautiful in the series of discourses called *Enneades*. His philosophy differs from the Platonic in the recognition of an objective *νοῦς*, the direct emanation from the absolute Good, in which the ideas or notions (*λόγοι*), which are the prototypes of real things, are immanent. This Reason, as self-moving, becomes the formative influence reducing matter, which in itself is dead, to form. Matter thus formed becomes a notion (*λογος*), and this form is beauty. Objects are ugly so far as they are unacted upon by Reason, and so remain formless. The creative *νοῦς* is absolute Beauty, and is called the more than beautiful (*τὸ ὑπέρκαλλον*). There are three degrees or stages of the Beautiful in manifestation, namely, the beauty of subjective *νοῦς*, or human reason, which is the highest; that of the human soul, which is less perfect through the connection of the soul with a material body; and that of real objects, which is the lowest manifestation of all. As to the characteristic form of beauty, he supposed, in opposition to Aristotle, that a single thing not divisible into parts might be beautiful through its unity and simplicity. He attached special worth to the beauty of colors in which material darkness is overpowered by light and warmth. In reference to artistic beauty, he said that when the artist has *λόγοι* as models for his creations, these may become more beautiful than natural objects. This is a very curious divergence of opinion from the Platonic.

After Plotinus there is little specu-

lation on æsthetic subjects till we come to modern writers. St. Augustine wrote a treatise on the Beautiful, now lost, in which he appears to have reproduced Platonic ideas under a Christian guise. He taught that unity is the form of all beauty ("omnis porro pulchritudinis forma unitas est"). Infinite goodness, truth and beauty are the attributes of the Deity, and communicated by him to things. But passing from these fragmentary utterances, we may consider more fully the modern theories, beginning with the German systems, as being the most metaphysical, and having most affinity with ancient speculation. In German literature the two divisions of metaphysical deduction and critical construction of æsthetic principles are very sharply contrasted, and nearly every writer on the subject is easily referred to one or other of the classes. On the one hand, we have the laborious systematic philosophers, as Kant and Hegel; and on the other, men who entered upon æsthetic speculation either as connoisseurs of some special department, as Winckelmann and Lessing, or even as productive artists—for example, Schiller and Goethe.

II. *German Writers.*—The first of the Germans who attempted to fit a theory of the Beautiful and of Art into a complete system of philosophy was Baumgarten. Adopting the Wolffian principles of knowledge, as modified by Leibnitz, he thought he was completing that system by setting over against logical knowledge, whose object is truth, æsthetic knowledge, which has to do with beauty. The former is conceptive knowledge (*begreifendes Erkennen*), the act of the understanding, and its result as the science of clear conceptions, is embodied in logic. Æsthetic has to do, not with clear, but confused conceptions (*verworrene Vorstellungen*), namely, sensuous knowledge. The beautiful is defined by Baumgarten as the perfection of sensuous knowledge, and the ugly is that which struggles against this perfection; and,

consistently with this view, he first employed the term æsthetic (*æsthetica*) to denote a theory of the Beautiful. He held that perfection, as harmony of object with its conception or notion (*Begriff*), presents itself under three aspects:—(1.) As truth for pure knowledge; (2.) As beauty for obscure perception; (3.) As goodness for the capacities of desire or will. It will be seen at once by the thoughtful student that this mode of dealing with impressions of beauty, etc., simply as intellectual elements (confused conceptions), must fail to account for their emotional aspects—feeling, which is the very soul of the æsthetic impression, being radically distinct from conception and knowledge. Still Baumgarten did service in separating so sharply the provinces of logic, ethics, and æsthetics, and in connecting the latter with the impressions of the senses. The details of his æsthetics are mostly unimportant. From Leibnitz's theory of a pre-established harmony, and its consequence that the world is the best possible, Baumgarten concluded that nature is the highest embodiment of beauty, and that art must seek as its highest function the strictest possible imitation of nature. Baumgarten had several disciples in this conception of æsthetics, as Sulzer and Moses Mendelssohn.

The next original philosophical scheme of æsthetics is that of Kant. His system of knowledge falls into three branches—the critique of pure reason, which has to determine what are the *à priori* elements in the knowledge of objects; the critique of practical reason, which inquires into the *à priori* determinations of the will; and the critique of judgment, which he regards as a connecting link between the other two, and which has to do with any *à priori* principles of emotion (pleasure and pain), as the middle term between cognition and volition. This judgment Kant divides into the æsthetic, when pleasure or pain is felt immediately on presentation of an object; and the teleologi-

cal, which implies a pre-existing notion, to which the object is expected to conform. He attempts, in a somewhat strained manner, to define the Beautiful by help of his four categories. In *quality* beauty is that which pleases without interest or pleasure in the existence of the object. This distinguishes it from the simply Agreeable and the Good, the former stimulating desire, and the latter giving motive to the will. In *quantity* it is a universal pleasure. Under the aspect of *relation*, the Beautiful is the form of adaptation (*Zweckmässigkeit*) without any end being conceived. Finally, in *modality* it is a necessary satisfaction, pleasing not by a universal rule, this being unassignable, but by a *sensus communis*, or agreement of taste. Kant is not very consistent in carrying out these distinctions. Thus, for example, he recognizes in fitness a particular species of beauty, namely, "adhering" as distinguished from "free" or intrinsic beauty, without recognizing that this implies the presence of a notion. So, in discussing the objective validity of our æsthetic impressions, he decides that the highest meaning of beauty is to symbolize moral good; and, in even a more fanciful manner than that of Mr. Ruskin, he attaches moral ideas, as modesty, frankness, courage, etc., to the seven primary colors of the Newtonian system. Yet he does not admit that the perception of this symbolic function involves any notion. Once more, he attributes beauty to a single color or tone by reason of its purity. But such a definition of the form of the Beautiful clearly involves some notion in the percipient mind. Kant further applies his four categories, with still less of fruitful suggestion, to the Sublime. The satisfaction of the Sublime is a kind of negative pleasure created through the feeling of a momentary restraint (*Hemmung*) of vital force, and of a subsequent outpouring of the same in greater intensity. The feeling of the inadequacy of the imagination is suc-

ceeded by "a consciousness of the superiority of reason to imagination. The sentiment is thus a kind of wonder or awe. Sublimity is either mathematical, that of magnitude, or dynamical, that of nature's might. He allows no sublimity to passions, as rage or revenge. Kant has, too, a theory of the Ridiculous, the effect of which he lays, oddly enough in respect to the rest of his doctrine, in a grateful action of the body, the muscles of the diaphragm, etc., giving a sense of health. This action takes place on the sudden relaxation of the understanding when kept in a state of tension by expectation. The cause of laughter, or the Ridiculous, may hence be defined as "the sudden transformation of a tense expectation into nothing." He placed the beauty of nature above that of art, which can be of value only mediately, not as an end in itself. He classifies the arts according as they express the æsthetic idea—whatever this may mean after his exclusion of all definite conception from the perception of beauty. Just as expression in speech consists of articulation, gesticulation, and modulation, answering to thought, intuition (*Anschauung*), and feeling, so we have three kinds of art—(1.) Those proceeding orally (*redende*), oratory and poetry; (2.) Those of visible image (*bildende*), plastic art and painting; and (3.) "the art of the play of feelings," namely, music and "color art," which last is not defined. Kant's system is very defective, and some of its inconsistencies were pointed out by Herder in his *Kalligone*, who lacked, however, philosophic accuracy. Herder denied Kant's distinctions between the Beautiful, the Good, and the Agreeable, saying that the first must be desired as well as satisfying, and the second be loved as well as prized. Yet herein Kant is decidedly superior to his critic. Herder held, in opposition to Kant, that all beauty includes significance (*Bedeutsamkeit*), and cannot affect us apart from a notion of perfection.

But here, too, Kant is to be preferred, since his theory does not assume all beautiful objects to contain some one element or form capable of being detected. Kant's real additions to æsthetic theory consist in the better separation of the Beautiful from the Good and Agreeable, in the prominence given to the emotional side of æsthetic impressions, and in the partial recognition of the relativity of æsthetic judgment, more especially in the case of the Sublime.

After Kant the next philosopher to discuss the metaphysics of the Beautiful and art is Schelling. He sought to engraft art upon his curious system of transcendental idealism in a manner which can only be faintly indicated here. In Schelling's metaphysical system the relation of subject and object is conceived as identity. Each exists, yet not independently of the other, but identified in a higher, the absolute. They may be conceived as two poles representing different directions, but yet inseparably joined. All knowledge rests on this agreement. Either nature, the object, may be conceived as the *prius*, and the subject constructed out of it; or the subject may be taken as the *prius*, and the object constructed from it. These are the two poles of knowledge, and constitute the philosophy of nature and the transcendental philosophy. The latter, like Kant's philosophy of mind, is based on a threefold conception of the powers of human nature. It consists of—(1.) Theoretic philosophy, dealing with perception; (2.) Practical philosophy, discussing the will and freedom; and (3.) The philosophy of art. The aim of the last is thus expressed: The *ego* must succeed in actually perceiving the concord of subject and object, which is half disguised in perception and volition. This concord is seen within the limits of the *ego* in artistic perception only. Just as the product of nature is an unconscious product like a conscious one, in its designfulness, so the product of art is a conscious product like an uncon-

scious one. Only in the work of art does intelligence reach a perfect perception of its real self. This is accompanied by a feeling of infinite satisfaction, all mystery being solved. Through the creative activity of the artist the absolute reveals itself in the perfect identity of subject and object. Art is therefore higher than philosophy. Schelling thus sets the beauty of art far above that of nature. As to the form of the beautiful he is very vague, leaning now to a conception of harmony in the totality of the world (*Weltall*), and now to a Platonic conception of primitive forms (*Urbilder*) of perfection. He has a very intricate classification of the arts, based on his antithesis of object and subject, reality and ideality. A curious feature of Schelling's theory is his application of his one fundamental idea to tragedy. The essence of tragedy is, he thinks, an actual conflict of liberty in the subject with objective necessity, in which both being conquered and conquering, appear at once in the perfect indifference. Antique tragedy he holds, accordingly, to be the most perfect composition of all arts.

Passing over Solger, whose æsthetic doctrine is little more than a revival of Platonism, we come to Hegel. His system of philosophy falls into three parts, all based on the self-movement of the idea or absolute:—(1.) The logic discussing the pure universal notions which are the logical evolution of the absolute, as pure thought; (2.) Philosophy of nature—the disruption of thought, the idea, into the particular and external; (3.) Philosophy of the spirit—the return of thought or the absolute from this self-alienation to itself in self-cognizant thought. Just as the absolute, so has spirit a series of three grades to traverse—(a.) Subjective spirit or intelligence, relating itself to the rational object as something given; (b.) Objective spirit or will, which converts the subjectivized theoretical matter (truth) into objectivity; (c.) Absolute spirit, which is the return

of the spirit from objectivity to the ideality of cognition, to the perception of the absolute idea. This again has three stages—(1.) Art, in which the absolute is immediately present to sensuous perception; (2.) Religion, which embodies certainty of the idea as above all immediate reality; and (3.) Philosophy, the unity of these. According to this conception, the beautiful is defined as the shining of the idea through a sensuous medium (as color or tone). It is said to have its life in shining or appearance (*Schein*), and so differs from the true, which is not real sensuous existence, but the universal idea contained in it for thought. He defines the form of the Beautiful as unity of the manifold. The notion (*Begriff*) gives necessity in mutual dependence of parts (unity), while the reality demands the appearance or semblance (*Schein*) of liberty in the parts. He discusses very fully the beauty of nature as immediate unity of notion and reality, and lays great emphasis on the beauty of organic life. But it is in art that, like Schelling, he finds the highest revelation of the Beautiful. Art makes up the deficiencies of natural beauty by bringing the idea into clearer light, by showing the external in its life and spiritual animation. The various forms of art depend on the various combinations of matter and form. In Oriental or symbolical art matter is predominant, and the thought is struggling through with pain so as to reveal the ideal. In the classical form the ideal has attained an adequate existence, form and matter being absolutely commensurate. Lastly, in the romantic form, the matter is reduced to a mere show, and the ideal is supreme. Hegel classifies the individual arts according to this same principle of the relative supremacy of form and matter—(1.) The beginning of art is architecture, in which as a symbolic art the sensuous material is in excess. (2.) Sculpture is less subjected to matter, and, as representing the living body, is a step

toward a higher ideality. (3.) Painting, which is the romantic art κατ' ἐξοχήν, expresses the full life of the soul. By the elimination of the third dimension of space, and the employment of a colored plane, painting rids itself of the coarse material substrate of sculpture, and produces only a semblance of materiality. (4.) In music, which employs pure tone, all the elements of space are suppressed, and hence its content is the inner emotional nature (*Gemüth*). Music is the most subjective of the arts. (5.) Poetry has the privilege of universal expression. It contains all the other arts in itself, namely, the plastic art in the epos, music in the ode, and the unity of both in the drama.

Several systems of æsthetics, more or less Hegelian in character, can only be referred to in passing. Weisse defined æsthetics as the science of the idea of beauty, and explained the Beautiful as the entrance of the universal or of the essence into the limited and finite, that is, the cancelling or annulling of truth (*die aufgehobene Wahrheit*). By thus recognizing an internal contradiction in all beauty, he sought to develop, by a curious dialectical process, the ideas of the Ugly, the Sublime, and the Ludicrous. He treats each of these three in immediate contrast to beauty. Ugliness is the immediate existence of beauty. It appears as the negative moment in the Sublime, and in the Ludicrous this negativity is again cancelled and resolved into affirmation so as to constitute a return to the Beautiful. A like attempt to determine the relations of the Ugly, Comic, etc., as moments of the self-revealing idea was made by several Hegelians. Thus Ruge, in his *Abhandlung über das Komische*, teaches that sublimity is the æsthetic idea striving to find itself, together with the satisfaction of this striving. If, however, the idea lose itself, sinking away in a kind of swoon, we have the Ugly. Finally, when the idea recovers from the swoon, its new

birth is attended with a feeling of amusement (*Erheiterung*), and then we have the effect of the Ludicrous. Rosenkranz in his *Æsthetik des Hässlichen*, conceives the Ugly as the negation of the Beautiful, or as the middle between the Beautiful and the Ludicrous, and seeks to trace out its various manifestations in formlessness in nature, incorrectness in artistic representation, and deformity or the disorganization of the Beautiful in caricature. Schasler, again, seems to hold that the Ugly is co-ordinate with the Beautiful, being the motor principle that drives the Beautiful from the unconditional rest of the Platonic idea, from the sphere of empty abstractness to actuality. This fundamental contradiction reveals itself as the contrast of matter and spirit, rigid motionlessness and motion, and appears in art as the antithesis of the sublime and graceful (*das Anmuthige*), the latter containing the Naïf, the Pretty, and the Ridiculous. Finally, Theodor Vischer seeks to settle these subtle relationships, in this manner: He supposes the Sublime to be the sundering of the æsthetic idea and its sensuous image (*Gebild*)⁸ from the state of unity constituting the Beautiful, the idea reaching as the infinite over against the finite of the image. The image now resists the sudden rupture, and in asserting itself as a totality in defiance of the idea beomes the Ugly. The Comic, again, is the result of some partial and apparently involuntary recognition of the rights of the idea by the rebellious image. Schasler says, in criticising the views of Vischer, that it is difficult not to be satirical in describing the dialectic artifices to which the idea is here compelled, little suspecting how easily any similar attempt to adjust relations between these ideas looked at objectively as movements of the supreme idea, may appear equally naïf and funny to a mind not already oppressed with the resisting burden of its own abstractions.

Theodor Vischer, the last of the

Hegelians named here, has produced the largest and most laborious system of metaphysical æsthetics, and a brief account of its scope must be given to complete our history of the German systems. He defines æsthetics as the science of the Beautiful. His system falls into three parts: (1.) Metaphysic of the Beautiful; (2.) The Beautiful as one-sided existence—beauty of nature and the human imagination; (3.) The subjective-objective actuality of the Beautiful—Art. The metaphysic again falls into two parts—the theory of simple beauty, and that of the Beautiful in the resistance of its moments (the Sublime and Ridiculous). He defines the Beautiful as “the idea in the form of limited appearance.” His discussions of the various beauties of nature, the organic and inorganic world, are very full and suggestive, and his elaboration of the principles of art (excepting those of music, which he left another to elucidate), is marked by a wide and accurate knowledge. He divides the arts into—(1.) The objective, or eye arts (architecture, sculpture and painting); (2.) Subjective, or ear arts (music); (3.) Subjective-objective arts, or those of sensuous conception (poetry). He subdivides the first into those of measuring sight (architecture), touching sight (sculpture), and sight proper (painting). Vischer's style is very labored. His propositions fall into the form of mathematical theorems, and are made exceedingly incomprehensible by the excessive subtleties of his metaphysical nomenclature.

There are several other systems of æsthetics which deserve mention here but space does not allow of a full account of them. Of these the most important are the theories of Herbart, Schopenhauer, and von Kirchmann. Herbart's views are based on his curious psychological conceptions. He ignores any function in the Beautiful as expressive of the idea, and seeks simply to determine the simplest forms or the elementary judgments of beauty. Schopenhauer's

discussions, connecting beauty with his peculiar conception of the universe as volition, are a curious contribution to the subject. As a specimen of his speculations, one may give his definition of tragedy as the representation of the horrible side of life, the scornful dominion of accident, and the inevitable fall of the just and innocent, this containing a significant glimpse into the nature of the world and existence. Von Kirchmann has written a two-volume work on æsthetics, which is interesting as a reaction against the Hegelian method. It professes to be an attempt to base the science on a realistic foundation, and to apply the principles of observation and induction long acted upon in natural science.

The German æsthetic speculations not elaborated into complete systems are too numerous to be fully represented here. Only a few of the most valuable contributions to the theory will be alluded to. Winckelmann's services to the development of plastic art do not directly concern us. Of his theory of plastic beauty, based exclusively on the principles of Greek sculpture, little requires to be said. He first pointed to the real sources of superiority in antique creations, by emphasizing the distinction between natural and ideal beauty, the æsthetic value of contour as an ideal element, the beauty of expression as the manifestation of an elevated soul, and consisting of a noble simplicity and a quiet grandeur. But by too exclusive an attention to Greek art, and indeed to sculpture, his theory, as an attempt to generalize on art, lacks completeness, making little room for the many-sidedness of art, and narrowing it down to one, though an exalted, ideal.

Lessing's services to the scientific theory of art are far greater than those of Winckelmann. He is the first modern who has sought to deduce the special function of an art from a consideration of the means at its disposal. In his *Laokoon* he de-

finer the boundaries of poetry and painting in a manner which has scarcely been improved on since. In slight divergence from Winckelmann, who had said that the representation of crying was excluded from sculpture by the ancients as unworthy of a great soul, Lessing sought to prove that it was prohibited by reason of its incompatibility with the conditions of plastic beauty. He reasoned from the example of the celebrated group, the *Laokoon*. Visible beauty was, he said, the first law of ancient sculpture and painting. These arts, as employing the co-existent and permanent in space, are much more limited than poetry, which employs the transitory and successive impressions of sound. Hence, expression is to poetry what corporeal beauty is to the arts of visible form and color. The former has to do with actions, the latter with bodies,—that is, objects whose parts co-exist. Poetry can only *suggest* material objects and visible scenery by means of actions; as for example, when Homer pictures Juno's chariot by a description of its formation piece by piece. Painting and sculpture, again, can only suggest actions by means of bodies. From this it follows that the range of expression in poetry is far greater than in visible art. Just as corporeal beauty loses much of its charm, so the visible Ugly loses much of its repulsiveness by the successive and transient character of the poetic medium. Hence poetry may introduce it, while painting is forbidden to represent it. Even the Disgusting may be skilfully employed in poetry to strengthen the impression of the Horrible or Ridiculous; while painting can only attempt this at its peril, as in Pordenone's Interment of Christ, in which a figure is represented as holding its nose. Visible imitation being immediate and permanent, the painful element cannot be softened and disguised by other and pleasing ingredients (the Laughable, etc.), as in poetry. As Schasler says, Lessing's theory hardly makes

room for the effects of individuality of character as one aim of pictorial as well as of poetic art. Yet as a broad distinction between the two heterogeneous arts, limiting, on the one hand, pictorial description in poetry, and the representation of the painful, low, and revolting in the arts of vision, it is unassailable, and constitutes a real discovery in æsthetics. Lessing's principles of the drama, as scattered through the critiques of the *Hamburg Dramaturgy*, are for the most part a further elucidation of Aristotelian principles, of great value to the progress of art, but adding comparatively little to the theory. Its conspicuous points are the determination of poetic truth as shadowed forth by Aristotle, and the difference between tragedy and comedy in respect to liberty of invention both of fable and of character; secondly, the reassertion that both fear and pity, and not simply one of these, are the effects of every tragedy, and that it is false dramatic art to attempt to represent either the sufferings of a perfect martyr, or the actions of some monstrous horror of wickedness, as Corneille and the French school had urged; lastly, the interpretation of Aristotle's purification of the passions as referring to this very fear and pity, and pointing to a certain desirable mean between excessive sensibility and excessive callousness. Schasler says that if Lessing had had an Aristotle to lean on in the *Laokoon* as in the *Dramaturgy*, it would have been more valuable. Others might be disposed to say that if he had been as free from the traditions of authority in the *Dramaturgy* as he in the *Laokoon*, the former might have contained as much in the way of real discovery as the latter.

The partial contributions to æsthetics after Lessing need not long detain us. Goethe wrote several tracts on æsthetic topics, as well as many aphorisms. He attempts to mediate between the claims of ideal beauty, as taught by Winckelmann, and the aims of individualization.

Schiller discusses, in a number of disconnected essays and letters, some of the principal questions in the philosophy or art. He looks at art as a side of culture and the forces of human nature, and finds in an æsthetically cultivated soul the reconciliation of the sensual and rational. His letters on æsthetic education (*Ueber die æsthetische Erziehung des Menschen*) are very valuable, and bring out the connection between æsthetic activity and the universal impulse to play (*Spieltrieb*). This impulse is formed from the union of two other impulses—the material (*Stofftrieb*) and the formal (*Formtrieb*)—the former of which seeks to make real the inner thought, the latter to form or fashion this reality. Schiller's thoughts on this topic are cast in a highly metaphysical mould, and he makes no attempt to trace the gradual development of the first crude play of children into the æsthetic pleasures of a cultivated maturity. He fixes as the two conditions of æsthetic growth, moral freedom of the individual and sociability. The philosophic basis of Schiller's speculation is the system of Kant. Another example of this kind of reflective discussion of art by literary men is afforded us in the *Vorschule der Ästhetik* of Jean Paul Richter. This is a rather ambitious discussion of the Sublime and the Ludicrous, and contains much valuable matter on the nature of humor in romantic poetry. Jean Paul is by no means exact or systematic, and his language is highly poetic. His definitions strike one as hasty and inadequate: for example, that the Sublime is the applied Infinite, or that the Ludicrous is the infinitely Small. Other writers of this class, as Wilhelm von Humboldt, the two Schlegels, Gervinus, though they have helped to form juster views of the several kinds of poetry, etc., have contributed little to the general theory of art. F. Schlegel's determination of the principle of romantic poetry as the Interesting, in opposition to the objectivity of antique

poetry, may be cited as a good example of this group of speculations.

No account of German æsthetics can be complete without some reference to the attempts recently made by one or two naturalists to determine experimentally the physical conditions and the net sensational element of artistic impression. Of these, the most imposing is the development by Helmholtz of a large part of the laws of musical composition, harmony, tone, modulation, etc., from a simple physical hypothesis as to the complex character of what appear to us as elementary tones. Another interesting experimental inquiry has been instituted by Fechner into the alleged superiority of "the golden section" as a visible proportion. Zeising, the author of this theory, asserts that the most pleasing division of a line, say in a cross, is the golden section, where the smaller division is to the larger as the latter to the sum. Fechner describes in his contribution *Zur experimentalen Ästhetik* a series of experiments on a large number of different persons, in which he supposes he eliminated all effects of individual association, and decides in favor of the hypothesis. He, however, assumes that this visible form must please primarily, and does not recognize that any constant association growing up in all minds alike would give precisely the same results. Finally, allusion may be made to some ingenious but very forced attempts of Unger and others to discover harmonic and melodious relations among the elementary colors.

III. French Writers on *Æsthetics*.—

In passing from German to French writers on æsthetical topics we find, as might be expected, much less of metaphysical assumption and a clearer perception of the scientific character of the problem. At the same time, the authors are but few, and their works mostly of a fragmentary character. Passing by the Jesuit André, who sought to rehabilitate Augustin's theory of the Beautiful, we first light on the name of Batteux. In his

Cours de Belles Lettres (1765) he seeks to determine the aims of art by elucidating the meaning and value of the imitation of nature. He classifies the arts according to the forms of space and time, those of either division being capable of combining among themselves, but not with those of the other. Thus architecture, sculpture, and painting may co-operate in one visible effect; also music, poetry, and the dance. Diderot, again in the *Encyclopédie*, sought to define beauty by making it to consist in the perception of relations. In his *Essais sur la Peinture* he follows Batteux in extolling naturalness, or fidelity to nature. Another very inadequate theory of beauty was propounded by Père Buffier. He said it is the type of a species which gives the measure of beauty. A beautiful face, though rare, is nevertheless the model after which the largest number is formed. Not unlike this theory is a doctrine propounded by H. Taine. In his work, *De l'Idéal dans l'Art*, he proceeds in the manner of a botanist to determine a scale of characters in the physical and moral man, according to the embodiment of which a work of art becomes ideal. The degree of universality or importance, and the degree of beneficence or adaptation to the ends of life in a character, give it its measure of æsthetic value, and render the work of art, which seeks to represent it in its purity, an ideal work.

The only elaborated systems of æsthetics in French literature are those constructed by the *spiritualistes*, that is, the philosophic followers of Reid and D. Stewart on the one hand, and the German idealists on the other, who constituted a reaction against the crude sensationalism of the 18th century. They aim at elucidating what they call the higher and spiritual element in æsthetic impressions, and wholly ignore any capability in material substance or external sensation of affording the peculiar delights of beauty. The lec-

tures of Cousin, entitled *Du Vrai, du Beau, et du Bien*, the *Cours d'Esthétique* of Jouffroy, and the systematic treatise of Lévêque, *La Science du Beau*, are the principal works of this school. The last, as the most elaborate, will afford the student the best insight into this mode of speculation. The system of Lévêque falls into four parts—(1.) The psychological observation and classification of the effects of the Beautiful on human intelligence and sensibility; (2.) The metaphysic of beauty, which determines whether it has a real objective existence, and if so, what is the internal principle or substance of this objective entity; and further seeks to adjust the relations of the Beautiful, the Sublime, the Ugly, and the Ridiculous in relation to this principle; (3.) The application of these psychological and metaphysical principles to the beauty of nature, animate and inanimate, and to that of the Deity; (4.) Their application to the arts. The influence of the Germans in this mode of systematizing is apparent. All the characters of beauty in external objects, as a flower, of which the principal are size, unity, and variety of parts, intensity of color, grace or flexibility, and correspondence to environment, may be summed up as the ideal grandeur and order of the species. These are perceived by reason to be the manifestations of an invisible vital force. Similarly the beauties of inorganic nature are translatable as the grand and orderly displays of an immaterial physical force. Thus all beauty is in its objective essence either spirit or unconscious force acting with fullness and in order. It is curious that Lévêque in this way modifies the strictly spiritual theory of beauty by the admission of an unconscious physical force, equally with spirit or mind, as an objective substratum of the Beautiful. He seeks, however, to assimilate this as nearly as possible to conscious energy, as immaterial and indivisible. The aim of art is to reproduce this beauty of nature in a beautiful man

ner, and the individual arts may be classified according to the degree of beautiful force or spirit expressed, and the degree of power with which this is interpreted. Accordingly, they are arranged by Lévêque in the same order as by Hegel.

IV. *Italian and Dutch Writers.*—There are a few writers on æsthetic subjects to be found in Italian and Dutch literature, but they have little of original speculation. The Italian, as Pagano and Muratori, follow French and English writers. One Dutch writer, Franz Hemsterhuis (18th century), is worth naming. His philosophic views are an attempt at reconciliation between the sensational and the intuitive systems of knowledge. The only faculty of true knowledge is an internal sense, nevertheless all true knowledge comes *through* the senses. The soul, desiring immediate and complete knowledge, and being limited by its union with the senses, which are incapable of perfectly simultaneous action, strives to gain the greatest number of the elements of cognition or ideas in the shortest possible time. In proportion as this effort is successful, the knowledge is attended with enjoyment. The highest measure of this delight is given by beauty, wherefore it may be defined as that which affords the largest number of ideas in the shortest time.

V. *English Writers.*—In the æsthetic speculations of English writers, we find still less of metaphysical construction and systematization than in those of French thinkers. Indeed, it may be said that there is nothing answering to the German conception of æsthetic in our literature. The inquiries of English and Scotch thinkers have been directed for the most part to very definite and strictly scientific problems, such as the psychological processes in the perception of the Beautiful. The more moderate metaphysical impulses of our countrymen have never reached beyond the bare assertion of an objective and independent beauty.

Hence we find that the German historians regard these special and limited discussions as so many empirical reflections, wholly devoid of the rational element in true philosophy. Schasler speaks of these essays as "empiristic æsthetics," tending in one direction to raw materialism, in the other, by want of method, never lifting itself above the plane of "an æstheticising dilettanteism." English writers are easily divisible into two groups—(1.) Those who lean to the conception of a primitive objective beauty, not resolvable into any simpler ingredients of sensation or simple emotion, which is perceived intuitively either by reason or by some special faculty, an internal sense; (2.) Those who, tracing the genesis of beauty to the union of simple impressions, have been chiefly concerned with a psychological discussion of the origin and growth of our æsthetic perceptions and emotions.

Lord Shaftesbury is the first of the intuitive writers on beauty. His views are highly metaphysical and Platonic in character. The Beautiful and the Good are combined in one ideal conception, much as with Plato. Matter in itself is ugly. The order of the world, wherein all beauty really resides, is a spiritual principle, all motion and life being the product of spirit. The principle of beauty is perceived not with the outer senses, but with an internal—that is, the moral—sense (which perceives the Good as well). This perception affords the only true delight, namely, spiritual enjoyment. Shaftesbury distinguishes three grades of the Beautiful, namely, (1.) Inanimate objects, including works of art; (2.) Living forms, which reveal the spiritual formative force; and (3.) The source from which these forms spring, God.

In his *Inquiry into the Original of our Ideas of Beauty and Virtue*, Hutcheson follows many of Shaftesbury's ideas. Yet he distinctly disclaims any independent self-existing

beauty in objects apart from perceptive minds. "All beauty," he says, "is relative to the sense of some mind perceiving it." The cause of beauty is not any simple sensation from an object, as color, tone, but a certain order among the parts, or "uniformity amidst variety." The faculty by which this principle is known is an internal sense which is defined as "a passive power of receiving ideas of beauty from all objects in which there is uniformity in variety." Thus Hutcheson seems to have supposed that beauty, though always residing in uniformity in variety as its form, was still something distinct from this, and so in need of a peculiar sense distinct from reason for the appreciation of it. But his meaning on this point is not clear. This faculty is called a sense, because it resembles the external senses in the immediateness of the pleasure it experiences. The perception of beauty, and the delight attending it, are quite as independent of considerations of principles, causes, or usefulness in the object, as the pleasurable sensation of a sweet taste. Further, the effect of a beautiful object is like the impression of our senses in its necessity; a beautiful thing being always, whether we will or no, beautiful. In the second place, this sense is called internal, because the appreciation of beauty is clearly distinct from the ordinary sensibility of the eye and ear, whether emotional or intellectual and discriminative, many persons who possess the latter intact being totally destitute of the former. Another reason is, that in some affairs which have little to do with the external senses, beauty, is perceived, as in theorems, universal truths, and general causes. Hutcheson discusses two kinds of beauty—absolute or original, and relative or comparative. The former is independent of all comparison of the beautiful object with another object of which it may be an imitation. The latter perceived in an object considered as an imitation or re-

semblance of something else. He distinctly states that "an exact imitation may still be beautiful though the original were entirely devoid of it; but, curiously enough, will not allow that this proves his previous definition of beauty as "uniformity amidst variety" to be too narrow. He seems to conceive that the original sense of beauty may be "varied and overbalanced" with the secondary and subordinate kind. Hutcheson spends a good deal of time in proving the universality of this sense of beauty, by showing that all men, in proportion to the enlargement of their intellectual capacity, are more delighted with uniformity than the contrary. He argues against the supposition that custom and education are sources of our perception of beauty, though he admits that they may enlarge the capacity of our minds to retain and compare, and so may add to the delight of beauty.

The next writer of consequence on the intuitive side is Reid. In the eighth of his *Essays on the Intellectual Powers* he discusses the faculty of taste. He held, on the ground of common sense, that beauty must exist in objects independently of our minds. As to the nature of the Beautiful, he taught that all beauty resides primarily in the faculties of the mind, intellectual and moral. The beauty which is spread over the face of visible nature is an emanation from this spiritual beauty, and is beautiful because it symbolizes and expresses it. Thus the beauty of a plant resides in its perfection for its end, as an expression of the wisdom of its Creator. Reid's theory of beauty is thus purely spiritual.

The celebrated *Lectures on Metaphysics* of Sir W. Hamilton do not, unfortunately, contain more than a slight preliminary sketch of the writer's theory of the emotional activities. He defines pleasure, following very closely the theory of Aristotle, as "a reflex of the spontaneous and unimpeded exertion of a power of whose energy we are conscious" (vol. ii. p. 440).

And, in perfect agreement with this conception, he divides the various feelings according to the faculties or powers, bodily or mental, of which they are the concomitants. In the scheme thus faintly shadowed forth, the sentiments of Taste are regarded as subserving both the subsidiary and the elaborative faculties in cognition, in other words, the Imagination and the Understanding. The activity of the former corresponds to the element of variety in the beautiful object, while that of the latter is concerned with its unity. A beautiful thing is accordingly defined "as one whose form occupies the Imagination and Understanding in a free and full, and, consequently, in an agreeable activity" (p. 512). In this way, the writer conceives, he comprehends all pre-existing definitions of beauty. He explicitly excludes all other varieties of pleasure, such as the sensuous, from the proper gratification of beauty. The æsthetic sentiment is thus regarded as unique and not resolvable into simpler feelings. Similarly, he denies any proper attribute of beauty to fitness. The essence of the sentiment of sublimity he finds, much in the same way as Kant, in a mingled pleasure and pain; "of pleasure in the consciousness of the strong energy, of pain in the consciousness that this energy is vain." He recognizes three forms of Sublimity: those of Extension or space, of Protension or time, and of Intension or power. Finally, he thinks that the Picturesque differs from the Beautiful in appealing simply to the imagination. A picturesque object is one whose parts are so palpably unconnected that the understanding is not stimulated to the perception of unity.

A very like interpretation of beauty, as spiritual and typical of divine attributes, has been given by Mr. Ruskin in the second volume of his *Modern Painters*. This part of his work, bearing the title "Of Ideas of Beauty," has a very systematic appearance, but is in fact a singularly

desultory series of æsthetic ideas put into a very charming language, and colored by strong emotion. Mr. Ruskin distinguishes between the theoretic faculty concerned in the moral perception and appreciation of ideas of beauty and the imaginative or artistic faculty, which is employed in regarding in a certain way and combining the ideas received from external nature. The former, he thinks, is wrongly named the *æsthetic* faculty, as though it were a mere operation of sense. The object of the faculty is beauty, which Mr. Ruskin divides into typical and vital beauty. The former is the external quality of bodies that typifies some divine attribute. The latter consists in "the appearance of felicitous fulfilment of function in living things." The forms of typical beauty are—(1.) Infinity, the type of the divine incomprehensibility; (2.) Unity, the type of the divine comprehensiveness; (3.) Repose, the type of the divine permanence; (4.) Symmetry, the type of the divine justice; (5.) Purity, the type of the divine energy; and (6.) Moderation, the type of government by law. Vital beauty, again, is regarded as relative when the degree of exaltation of the function is estimated, or generic if only the degree of conformity of an individual to the appointed functions of the species is taken into account. Mr. Ruskin's wide knowledge and fine æsthetic perception make his works replete with valuable suggestions, though he appears wanting in scientific accuracy, and lacks, as Mr. Mill has pointed out, all appreciation of the explanatory power of association with respect to the ideal elements of typical beauty.

Of the more analytic writers on the effects of the Beautiful, Addison deserves a passing mention, less, however, for the scientific precision of his definitions, than for the charm of his style. His Essays on the Imagination, contributed to the *Spectator*, are admirable specimens of popular æsthetic reflection. Addison means

by the pleasures of imagination those which arise originally from sight, and he divides them into two classes—(1.) Primary pleasures, which entirely proceed from objects before our eyes; and (2.) Secondary pleasures, flowing from ideas of visible objects. The original sources of pleasure in visible objects are greatness, novelty, and beauty. This, it may be said, is a valuable distinction, as pointing to the plurality of sources in the æsthetic impression, but the threefold division is only a very rough tentative, and destitute of all logical value, novelty of impression being always a condition of beauty. The secondary pleasures, he rightly remarks, are rendered far more extended than the original by the addition of the proper enjoyment of resemblance, which is at the basis of all mimicry and wit. Addison recognizes, too, the effects of association in the suggestion of whole scenes, and their accompaniments by some single circumstance. He has some curious hints as to the physiological seat of these mental processes, and seeks, somewhat naively, to connect these pleasures with teleological considerations.

In the *Elements of Criticism* of Lord Kames, another attempt is made to affiliate æsthetic phenomena to simpler pleasures of experience. Beauty and ugliness are simply the pleasant and the unpleasant in the higher senses of sight and hearing. By "higher" he means more intellectual, and he conceives these two senses to be placed midway between the lower senses and the understanding. He appears to admit no more general feature in beautiful objects than this pleasurable quality. Like Hutcheson, he divides beauty into intrinsic and relative, but understands by the latter ideas of fitness and utility, which were excluded from the Beautiful by Hutcheson. He illustrates the English tendency to connect mental processes with physiological conditions, by referring the main elements of the feeling of sublimity to the effect of height in ob-

jects in compelling the spectator to stand on tiptoe, by which the chest is expanded and muscular movements produced which give rise to the peculiar emotion.

Passing by the name of Sir Joshua Reynolds, whose theory of beauty closely resembles that of Père Buffier, we come to the speculations of another artist and painter, Hogarth. He discusses in his *Analysis of Beauty* all the elements of visible beauty, both form and color, often manifesting great speculative skill, and always showing a wide and accurate knowledge of art. He finds altogether six elements in beauty, namely—(1.) Fitness of the parts to some design, as of the limbs for support and movement; (2.) Variety in as many ways as possible, thus in form, length, and direction of line, shape, and magnitude of figure, etc; (3.) Uniformity, regularity, or symmetry, which is only beautiful when it helps to preserve the character of fitness; (4.) Simplicity or distinctness, which gives pleasure not in itself, but through its enabling the eye to enjoy variety with ease; (5.) Intricacy, which provides employment for our active energies, ever eager for pursuit, and leads the eye "a wanton kind of chase;" (6.) Quantity or magnitude, which draws our attention, and produces admiration and awe. "The beauty of proportion he very acutely resolves into the needs of fitness. Hogarth applies these principles to the determination of degrees of beauty in lines and figures, and compositions of forms. Among lines he singles out for special honor the serpentine (formed by drawing a line once round from the base to the apex of a long slender cone) as the line of grace or beauty *par excellence*. Its superiority he places in its many varieties of direction or curvature, though he adds that more suddenly curving lines displease by their grossness, while straighter lines appear lean and poor. In this last remark Hogarth tacitly allows another principle in graceful line, namely, gentle-

ness, as opposed to suddenness, of change in direction, though he does not give it distinct recognition in his theory, as Burke did. Hogarth's opinions are of great value as a set-off against the extreme views of Alison and the association school, since he distinctly attributes a great part of the effects of beauty in form, as in color, to the satisfaction of primitive susceptibilities of the mind, though he had not the requisite psychological knowledge to reduce them to their simplest expression. In his remarks on intricacy he shows clearly enough that he understood the pleasures of movement to be involved in all visual perception of form.

Burke's speculations on the Beautiful, in his *Philosophical Inquiry into the Origin of our Ideas of the Sublime and Beautiful*, are curious as introducing physiological considerations into the explanation of the feelings of beauty. They illustrate, moreover, the tendency of English writers to treat the problem as a psychological one. He finds the elements of beauty to be—(1.) Smallness of size; (2.) Smoothness of surface; (3.) Gradual variation of direction of outline, by which he means gentle curves; (4.) Delicacy, or the appearance of fragility; (5.) Brightness, purity and softness of color. The Sublime he resolves, not very carefully, into astonishment, which he thinks always contains an element of terror. Thus "infinity has a tendency to fill the mind with a delightful horror." Burke seeks what he calls "efficient causes" for these phenomena in certain affections of the nerves of sight, which he compares with the operations of taste, smell, and touch. Terror produces "an unnatural tension and certain violent emotions of the nerves," hence any objects of sight which produce this tension awaken the feeling of the Sublime, which is a kind of terror. Beautiful objects affect the nerves of sight just as smooth surfaces the nerves of touch, sweet tastes and odors the corresponding

nerve fibres, namely, by relaxing them, and so producing a soothing effect on the mind. The arbitrariness and narrowness of this theory, looked at as a complete explanation of beauty, cannot well escape the reader's attention.

Alison, in his well-known *Essays on the Nature and Principles of Taste*, proceeds on an exactly opposite method to that of Hogarth and Burke. He considers and seeks to analyze the mental process which goes on when we experience the emotion of beauty or sublimity. He finds that this consists in a peculiar operation of the imagination, namely, the flow of a train of ideas through the mind, which ideas are not arbitrarily determined, but always correspond to some simple affection or emotion (as cheerfulness, sadness, awe), awakened by the object. He thus makes association the sole source of the Beautiful, and denies any such attribute to the simple impressions of the senses. His exposition, which is very extensive, contains many ingenious and valuable contributions to the ideal or association side of æsthetic effects, both of nature and of art; but his total exclusion of delight (by which name he distinguishes æsthetic pleasure) from the immediate effects of color, visible form, and tone, makes his theory appear very incomplete. This is especially applicable to music, where the delight of mere sensation is perhaps most conspicuous. He fails, too, to see that in the emotional harmony of the ideas, which according to his view, make up an impression of beauty, there is a distinct source of pleasure over and above that supplied by the simple feeling and by the ideas themselves.

Jeffrey's *Essay on Beauty* is little more than a modification of Alison's views. He defines the sense of beauty as consisting in the suggestion of agreeable and interesting sensations previously experienced by means of our various pleasurable sensibilities. He thus retains the necessity

of ideal suggestion, but at the same time discards the supposed requirement of a *train* of ideas. Jeffrey distinctly saw that this theory excludes the hypothesis of an independent beauty inherent in objects. He fails as completely as Alison to disprove the existence of a sensuous or organic beautiful, and, like him, is avowedly concerned to show the presence of some one, and only one, determining principle in all forms of the Beautiful.

D. Stewart's chief merit in the æsthetic discussions contained in his *Philosophical Essays*, consists in pointing out this unwarranted assumption of some single quality (other than that of producing a certain refined pleasure) running through all beautiful objects, and constituting the essence of beauty. He shows very ingeniously how the successive transitions and generalizations in the meaning of the term beauty may have arisen. He thinks it must originally have connoted the pleasure of color, which he recognizes as primitive. His criticisms on the one-sided schemes of other writers, as Burke and Alison, are very able, though he himself hardly attempts any complete theory of beauty. His conception of the Sublime, suggested by the etymology of the word, renders prominent the element of height in objects, which he conceives as an upward direction of motion, and which operates on the mind as an exhibition of power, namely, triumph over gravity.

Of the association psychologists James Mill did little more toward the analysis of the sentiments of beauty than re-state Alison's doctrine. On the other hand, Professor Bain, in his treatise *The Emotions and the Will*, carries this examination considerably further. He asserts with Stewart that no one generalization will comprehend all varieties of beautiful objects. He thinks, however, that the æsthetic emotions, those involved in the fine arts, may be roughly circumscribed and marked off from

other modes of enjoyment by means of three characteristics—(1.) Their not serving to keep up existence, but being gratifications sought for themselves only; (2.) Their purity from all repulsive ingredients; (3.) Their eminently sympathetic or sharable nature in contrast to the exclusive pleasures of the individual in eating, etc. The pleasures of art are divided, according to Mr. Bain's general plan of the mind, into (1.) The elements of sensation—sights and sounds; (2.) The extension of these by intellectual revival—ideal suggestions of muscular impression, touch, odor, and other pleasurable sensations; (3.) The revival, in ideal form also, of pleasurable emotions, as tenderness and power, and in a softened measure of emotions painful in reality, as fear; (4.) The immediate gratification, that is in actual form, of certain wide emotional susceptibilities reaching beyond art, namely, the elating effect of all change of impression under the forms of artistic contrast and variety; and, secondly, the peculiar delight springing from harmony among impressions and feelings, under its several æsthetic aspects, musical harmony and melody, proportion, etc. The details in Mr. Bain's exposition are rich and varied in relation to the psychology of the subject. He finds the effect of sublimity in the manifestation of superior power in its highest degrees, which manifestation excites a sympathetic elation in the beholder. The Ludicrous, again, is defined by Mr. Bain, improving on Aristotle and Hobbes, as the degradation of something possessing dignity in circumstances that excite no other strong emotion. The pleasure accompanying the impression may be referred either to the elation of a sense of power or superiority ideally or sympathetically excited, or to a sense of freedom from restraint, both of which have in common the element of a joyous rebound from pressure. Thus it will be seen that Professor Bain recognizes no new mental principle in æsthetic effects, but re-

gards them as peculiar combinations and transformations, according to known psychological laws, of other and simpler feelings.

An interesting turn has been given to the psychology of æsthetics by Mr. Herbert Spencer. In some of his essays as the one entitled *The Origin and Function of Music*," and more fully in the concluding chapter of his *Psychology* (second edition), on the *Æsthetic Sentiments*, he offers a new theory of the genesis of the pleasures of beauty and art, based on his doctrine of evolution. He takes up Schiller's idea of the connection between æsthetic activity and play, only he deals with this latter not as an ideal tendency, but as a phenomenal reality seeking to make it the actual starting-point in the order of evolution of æsthetic action. Play or sport is defined as the superfluous and useless exercise of faculties that have been quiescent for a time, and have in this way become so ready to discharge as to relieve themselves by *simulated* actions. *Æsthetic* activities yield to the higher powers of perception and emotion the substituted exercise which play yields to the lower impulses, agreeing with play in not directly subserving any processes conducive to life, but being gratifications sought for themselves only. This point of affinity between the two classes of pleasures is a valuable addition to æsthetic theory, and helps one to understand how the artistic impulse first arose. At the same time it is doubtful how far all present æsthetic pleasures, as the passive enjoyments of color and tone, can be interpreted as substituted activities in Mr. Spencer's sense. They seem rather to be original and instinctive modes of gratification not dependent on any previous exercises of life-function, except so far as the structure and functions of the senses as a whole may be viewed as the product of multitudinous life-processes in animal evolution. Mr. Spencer, moreover, forms a hierarchy of æsthetic pleasures, the standard of height be-

ing either the number of powers duly exercised, or what comes to the same thing, the degree of complexity of the emotional faculty thus exercised. The first and lowest class of pleasures, are those of simple sensation as tone and color, which are partly organic and partly the results of association. The second class are the pleasures of perception, as employed upon the combination of colors, etc. The highest order of pleasures are those of the æsthetic sentiments proper, consisting of the multitudinous emotions ideally excited by æsthetic objects, natural and artistic. Among these vaguely and partially revived emotions Mr. Spencer reckons not only those of the individual, but also many of the constant feelings of the race. Thus he would attribute the vagueness and apparent depth of musical emotion to associations with vocal tones, built up during the course of vast ages. This graduated scheme is evidently dictated by the assumption that the higher the stage of evolution the higher the pleasure. Yet Mr. Spencer admits that this measure of æsthetic value will not suffice alone, and he adds, that the most perfect form of æsthetic gratification is realized when sensation, perception, and emotion, are present in fullest and most pleasurable action. Mr. Spencer's supposition, that much of the pleasure of æsthetic emotion is referable to transmitted experience, offers a very ingenious, even if not very definite mode of explaining many of the mysterious effects of tone, and even of color.

DREAMS.

BY JAMES SULLY, M.A.

DREAMS are a variety of a large class of mental phenomena which may be roughly defined as states of mind which, though not the result of the action of external objects, resume the form of objective perceptions.

To this class belong the fleeting images which occasionally present themselves during waking hours, and especially before sleep, the "visions" which occur in certain exalted emotional conditions, as in religious ecstasy, the hallucinations of the insane, the mental phenomena observable in certain artificially produced states (hypnotism), etc. These and other mental conditions resemble one another in many important respects, to be spoken of by and by. At the same time they are roughly marked off by certain special circumstances. Thus, dreaming may be distinguished from the other species of the class as depending on the most complete withdrawal of the mind from the external world. All products of the imagination which take the aspect of objective perceptions must, it is clear, involve a partial aberration of the intellectual processes. Yet in all cases except that of dreaming—including even somnambulism—the mind preserves certain limited relations to external objects. In dreams, on the contrary, the exclusion of the external world from consciousness is for the most part complete. Sleep has under normal circumstances the effect both of closing the avenues (sensory nerves) by which external impressions are conveyed to consciousness, and of cutting off from the mind that mechanism (the voluntary motor nerves and muscles) through which it maintains and regulates its varying relations to the outer world. Dreams cover a great variety of mental states from fleeting momentary fancies to extended series of imaginations. Again, dreams have certain constant or approximately constant features, while in other respects they manifest wide diversity. Among the most general characteristics is to be named the apparent objectivity of dream-experience. The presence of this objective element in dreams is clearly indicated in their familiar appellation "visions," which also points to the well-recognized

fact that a large part of our dream-imagination simulates the form of *visual* perception. The next general characteristic of dreams is that, though resembling waking experience in many respects, they seem never exactly to reproduce the order of this experience. Most of our dreams differ very widely from any events ever known to us in waking life, and even those which most closely resemble certain portions of this life introduce numerous changes in detail. These deviations involve one or two distinct elements. First of all, there is a great confusion of the order in time, space, etc., which holds among real objects and events. Widely remote places and events are brought together, persons set in new relations to one another, and so on. Secondly, the objects and scenes are apt to assume a greatly exaggerated intensity. They take a firmer hold of us, so to speak, than our waking experience. We may when awake think of dreams as unsubstantial and unreal, but to the dreamer at the moment his imagined surroundings are more real, more impressive, than the actual ones which he perceives when awake. Dream-fancy exaggerates the various aspects of objects, makes what is large still larger, what is striking still more striking, what is beautiful still more beautiful, and so on.

Having touched on these approximately universal characteristics of dreams, we will now specify a few of the more variable features. For example, in a large number of our dreams we appear to be passive spectators of events which we are incapable, or rather do not think, of controlling in any way. In other dreams, again, we seem to be lively actors in the scene,—talking, moving, etc., as we are wont to do in waking life. In a class of dreams lying midway between these two extremes we appear to be impelled to act, to be struggling to seize some offered good or to avert some threatening evil, yet to be unable to execute our wishes.

Once more, dreams differ very much as to their degree of reasonableness. It is certain that in many cases the dreamer is easily imposed on, sees no contradictions, does not seek to understand the events which unfold themselves before his fancy, and so on. In some instances, indeed, the mind of the dreamer loses even the sense of identity in objects, and metamorphizes persons in the most capricious manner; and this confusion of identity may embrace the dreamer himself, so that he imagines himself to be somebody else, or projects a part of himself, so to speak, into another personality, which thus becomes an *alter ego* and an object for the contemplation of the remaining self. Yet though it is true that many, probably a large proportion, of our dreams, are thus unintelligible to waking thought, there is a number of well-authenticated dreams in which persons have proved themselves to be possessed not only of their ordinary, but even of an extraordinary, power of reflection. We refer to the well-known stories of the intellectual achievements of Condillac, Condorcet, Coleridge, etc., when dreaming. Once more, great differences are observable in dreams with respect to the feelings excited by the visionary experiences. Sometimes the circumstances in which we find ourselves affect us much as in waking life;—danger terrifies us, beauty delights us, and so on. At other times, however we are not thus affected; what would puzzle, confuse, or shock our minds in waking experience fails to do so in dream-life. Finally, there are certain exceptional features of dream-life, as a vague consciousness of dreaming, which assumes the form of a dream within a dream, and the repetition of the images of previous dreams with a recognition of the familiarity of the dream-scenes. It need hardly be added that dreaming varies greatly both in quantity and in quality, according to individual temperament, habits of thought, etc.

Theories of Dreaming.—From the

slight sketch of the character of the dreaming process just given, it might be conjectured that the human mind at all times would be profoundly impressed with the fact of dreaming, and seek to arrive at some explanation of what on the surface is undoubtedly so mysterious and so wonderful a phenomenon. And as a matter of history we find that men have in all the known stages of their intellectual development endeavored to account for the visions of the night. The various theories thus put forward fall into two main classes—the supernatural and the natural. By the former we mean all explanations which assume the action of forces unknown to our waking experience; by the latter those which make no such assumption, but seek to interpret dream-phenomena as products of forces familiar to waking perception. The supernatural hypothesis, again, falls into two divisions, according as the dream is regarded as the immediate effect of some reality corresponding to the actual world of our waking experience, or as it is conceived as a mediate result depending on the volition and command of some absent being. We thus have three main methods of explaining dreams:—(a) The naïve objective explanation; (b) the religious explanation; (c) the scientific explanation.

(a) *The Dream as Immediate Objective Experience.*—According to recent researches the savage mind regards dreaming as no less real an objective experience than waking. The objects and scenes which flit before the dreaming fancy of the primitive man are real material existences, the sounds he seems to hear are real external sounds, the dream figures which stand before his imagination and converse with him are real persons. How then does he conceive the relation of this dream-world to the world of waking experience? This question has lately been answered by Mr. E. B. Tylor and Mr. Herbert Spencer. The belief in the objective reality of dreams requires

the savage to conceive a double nature both for objects (animate and inanimate) external to himself and for himself. The vision of dead ancestors, of material objects long since lost or destroyed, easily suggests the idea of a duplicate of the original person or thing, a second self or soul. On the other hand, when the savage dreams that he goes forth to accustomed scenes, to hunt, to fight, and so on, he accounts for the dream by the supposition that his own second self or soul leaves the body and passes forth to the particular locality. Thus the dream-life shapes itself to our primitive philosopher as an intercourse of souls or duplicate selves, co-ordinate with, and of equal reality with, the experience of waking life. It appears to follow from the unfamiliarity of dream scenes, personages, etc., that the region visited during sleep will be projected by the savage mind quite outside the world of waking observation. Mr. Spencer connects with this fact the earliest theories of another world or a spiritual state. (For a fuller account of the part played by dreams in primitive ideas consult E. B. Tylor, *Primitive Culture*, vol. i. chap. xi.; H. Spencer, *Principles of Sociology*, i. ch. x. *et seq.*)

(b) *The Dream as a Communication from a Supernatural Being.*—It is plain that even in the savage's conception of dreaming there is room for the thought of a divine announcement. When once the idea of superior beings, deities, demons, etc., is reached, it becomes natural to regard the visit of some departed soul as the dispatch of a messenger to the dreamer. In this way the first mode of explanation passes insensibly into the second. In higher stages of religious thought the view of a dream as a divine revelation takes a less crude form. The immediate object present to the dreamer is no longer conceived as possessing the same degree of materiality. Something is still present, no doubt, and so the dream is in a sense objective; but the

reality is less like a tangible material object, and is transformed more or less completely into something unsubstantial, spiritual, and phantasmal. On the other hand, the dream is objective in the sense of being a message or revelation from some actual divine personage. The essence of the dream, so to speak, lies in the fact that it conveys to the dreamer something which the divine personage wishes him to know, whether it be the will of this being in the shape of a command or a prohibition, or some fact as yet unknown (past or future), the knowledge of which will be of practical utility to the recipient. We may distinguish three stages in this conception of dreams:—(1) The deity sends a messenger or angel who is vaguely conceived as a spiritual being clothed in a thin material vestment; (2) the divine communicator, dispensing with the medium of a material appearance, lets his message be heard by the dreamer as the utterance of an external voice; (3) he discloses his purpose by causing to pass before the soul a vision which is not distinctly conceived as objective, but rather as something mysteriously imprinted on the mind.

The divine communication which thus makes use of the medium of a dream will, it is plain, vary considerably in the degree of its intelligibility. Sometimes the meaning of the message is obvious and unmistakable. The actions to be performed and the facts to be known are revealed plainly and directly. This will be the case for the most part with the first and second forms of dream-communication. At times, too, the divinely-created vision may distinctly picture some coming event in the individual or national life. On the other hand, the communication may be disguised and only partially divulged by symbol, in which case there arises the necessity of an art of interpretation. Thus at times the oral utterance may assume the form of a dim oracular declaration which calls for careful attention and a cer-

tain skill in the application of verbal figures. It is, however, in the last form of dream-revelation that we find the greatest demands made on the interpreter's art. It follows from what has been said respecting the novelty of dream-combinations that many of the visual images which make up so large a bulk of our dreams cannot easily be fitted to any actual order of events. Hence, if such dreams are to be interpreted as having a bearing on actual events, they must be regarded as figurative and symbolic. Accordingly we find that the symbolic function of dreams has been fully recognized in all the theories of dreaming now dealt with. It seems to have been assumed that the normal mode of divine communication to man during sleep was that of such a figurative dream. And agreeably with this supposition the task of deciphering dream-symbols gradually grew into a skilled art, which became the prerogative of a certain class of experts,—as prophets, diviners, or magicians.

A very brief historical review of this religious theory of dreams must here suffice. Among the Oriental peoples this view of dreams was the prevailing one. We find, however, great differences in the mode of interpretation adopted. Among the ancient Hebrews, for example, we find all the three forms of dream-communication mentioned above. As to interpretation there seem to have been no definite rules, and the procedure followed resolves itself into an attempt to discover the most natural or least forced application of the persons, objects, and relations of the dream to some existing persons, social circumstances and events. This mode of interpretation clearly left wide scope for individual skill. In the Persian scheme of interpretation on the other hand, so far as we can judge of it from the compilations of a later age, the art of dream-interpretation, *oneirocritics*, or *oneiromancy*, was defined and fixed in a number of rules. Thus in the work known un-

der the name of the *Sifat-i-Sirozah*, minute and elaborate prescriptions are given for interpreting various classes of dreams according to the particular day of the month on which they occur. A similar systematization of the rules of dream-interpretation is to be met with among the Arabs (see *L'Onirocrité Mussulman*, par Gabdorrhachaman, traduction de Pierre Vattier). In such cases, it is plain, the interpretation of dreams involved less of individual genius or inspiration, and became a more mechanical process, involving only careful knowledge of formulae, and one which could be easily communicated. Such a state of things points to the transition of dream-lore from the stage of an esoteric mystery to that of a communicable science. Among the Greeks and Romans the religious view of dreams is to be found in popular literature as well as in philosophic writings. In Homer, dreams are distinctly said to be sent by the gods and goddesses, as in the expression *θεῖος ὄνειρος*, and it is implied that they may be intended to deceive the subject of them (e.g., Agamemnon's dream, *Iliad*, book ii.). Similarly the dramatists frequently speak of foreknowledge divinely communicated by dreams (e.g., Clytemnestra's prescience as to the fall of Troy in the *Agamemnon* of Æschylus is ascribed to a dream). The popular view was countenanced to a certain extent by philosophers. Thus Plato found room in his mystic scheme of knowledge for the idea of a divine manifestation to the soul in sleep. In the *Timæus* (chaps. xlv. and xlvii.) a prophetic character is distinctly assigned to the images of dreams. These divine inspirations (divinations) are not, however, given to the rational soul, but to the lower appetitive soul through the medium of the sensible images of rational truths which are reflected on the liver, an organ contiguous with the bodily seat of the appetitive soul. These prophetic visions are received only when the reasoning faculty is fettered

by sleep or alienated by disease and enthusiasm. In this way, the divine artificer has given to the inferior regions of the soul a certain substitute for rational knowledge. At the same time the interpretation of the visions requires intelligence, and hence the business of receiving them, and of interpreting them does not properly belong to the same persons. Even Aristotle treats the supposition of divine revelation in dreams very considerably when he writes, in the treatise *περὶ μαντικῆς τῆς ἐν τοῖς ὕπνοις*, "that there is a divination concerning some things in dreams is not incredible." The Stoics, again, to judge from Cicero's account of their views in his *De Divinatione*, reasoned *à priori* that the gods, if they love men and are omniscient as well as all-powerful, will certainly disclose their purposes to man in sleep. Chrysippus is, on the same authority, said to have written a volume on the interpretation of dreams as divine portents. Cicero's brother Quintus, who here defends the orthodox theory of dreams, speaks of a skilled interpretation of dreams which is a true divination, even though, like all other arts in which men have to proceed on conjecture and on artificial rules, it is not infallible. The current views of dreams of classic antiquity are supposed to be to some extent embodied in the *Ὀνειροκριτικά* of Daldianus Artemidorus of Ephesus (written about the year 170.) Here the interpretation of dreams is reduced to a body of elaborate rules. To dream of a particular element, as fire, air, etc., of a particular plant, part of the body, and so on, always signifies the same kind of event for the same kind of person. It is the overlooking of the age, social condition, etc., of the dreamer which in the view of Artemidorus, leads to the abuse of drama interpretation. He attempts to draw a distinction between *ὄνειρος*, a vision having a real bearing on events, and *ἐνύπνιον*, a mere dream having no actual significance; but this does not according to Liddell and Scott, cor-

respond with classical usage. The divine origin of dreams became a doctrine of the Christian church. It appears in the writings of the fathers, being defended partly on biblical, partly on classic authority. Synesius of Cyrene (born 375) has left a treatise on dreams (*περὶ ἐνύπνιων*). He puts forward certain psychological hypotheses drawn largely from Plato and Plotinus, and ascribes to the imagination (which is intermediate between the soul and the animal part) the power of accompanying the soul in its flights to the celestial regions, and so of sharing in the contemplation of divine truths. Synesius exalts the rank of dreaming among the arts of divination, setting it far above other modes of prophecy as being most simple and sure, open to all, unencumbered with expensive and laborious preparations, and so on. He affirms that he has repeatedly found dreams of service in arranging his ideas, and in improving his style of composition. Mediæval and modern Christian theologians have continued to attribute dreams, or, more accurately, certain orders of dream, to the intermediate agency of the divine Being. The popular theory of dreams to be met with among the later European peoples bears the impress of that folk-lore which developed itself in the Middle Ages under influences partly Christian, partly pagan. Dreams were referred to a variety of supernatural agencies, including not only God and the devil, but also subordinate beings, as fairy, fiend (incubus), etc. Further, the art of interpreting dreams according to definite rules (oneiromancy) was developed to a very high point. (See Brand, *Popular Antiquities*, vol. iii. *Dictionary of Dreams*). In our own times certain restricted classes of dreams are customarily associated with the action of benevolent or malignant beings. On the other hand, people are now wont to interpret dreams as omens or signs without distinctly attributing them to any supernatural agent. This view of dreams forms

the transition-point between the religious and the scientific theories.

(c) *The Dream as a Subjective Phenomenon Dependent on Natural Causes.*—While the theory of the divine or supernatural origin of dreams has thus held its ground so long, there has been gradually growing up from an early period of human history a more scientific conception of the phenomenon as dependent on natural laws (of mind and body). Psychologists and Physiologists alike have approached the subject from their respective points of view, and sought to explain the phenomena of dreaming as natural events. The first germs of a scientific theory of dreams are to be found in antiquity. Thus Democritus, from whom the Epicureans derived their theory, held that dreams are the product of the simulacra or phantasms of corporeal objects which are constantly floating in the atmosphere, and which attack the soul during repose. Again, Plato speaks in the *Republic* of dreaming as illustrating the dominant mental impulses and habits of the individual (unchecked appetite, and temperance with intellectual pursuits), and thus connects it with the normal waking operations of feeling and thought. Aristotle in his short treatise on dreams (*περί ἐνυπνίου*) refers dreaming to the action of objects of outward sense which leave behind impressions on the soul and bodily frame. Dreaming is said to be the function of the sensitive part of the mind, but of this so far as fantastic; and a dream is defined as "the phantasm arising from the motion of sensible perceptions when it presents itself to him who is asleep." Aristotle further has some correct observations on the immediate bodily conditions of dreaming, and on the exaggeration of sensation in this condition of mind. Thus, he says, we fancy it thunders and lightens when a small sound is produced in our ears; we imagine that we are eating honey in consequence of a defluxion of the least quantity of phlegm. In the *De*

Divinatione of Cicero we have almost an unique instance among classic writings of a complete rejection of the doctrine of the supernatural origin of dreams, and of a full and consistent adoption of the natural method of explaining the phenomena. Cicero's position stands in marked contrast to that of partial sceptics, as for example, Pliny, who seems content to exclude from the supernatural method of explanation certain of the more obviously natural dreams, such as those occurring immediately after food and wine, or when one has just fallen asleep after waking (*Nat. Hist.*).

While philosophers were thus learning to regard dreams as natural processes, physicians, on the other side, had their attention called to dreaming in its relation to pathological bodily conditions. It seems probable, indeed, that men occupied in studying bodily diseases were among the first to suspect the true nature and origin of dreaming. Thus Hippocrates, while inclined to admit that some dreams may be divine, distinctly says that others arise from the action of the mind and the body. Hippocrates, too, appears to have been the first to supply a scientific basis for the premonitory character of certain kinds of dreams. There are dreams, he says, which announce beforehand the affections of the body. This idea has, as we shall see presently, been confirmed by modern pathological observations. It is easy to understand that this prognostic side of dreams was in the early stages of knowledge greatly exaggerated. This appears to be true of the speculations of Galen, who held that to dream one's thigh was turned into stone signified the approaching loss of this member. This belief in the premonitory character of dreams was only one side of a general doctrine of dreams according to which they arise from bodily disturbances, and so may serve as symptoms which the physician has to include in the complete diagnosis of a disease.

This idea, which is recognized by modern physiologists as true within certain limits, led in the first crude stages of scientific investigation to exaggerated and fanciful conclusions. Thus a new system of dream-interpretation came into vogue according to which to dream of a certain thing always means a disturbance in one particular organ. In the doctrines of Oriental physicians (the Hindus and Chinese) dreams are thus referred to pathological states of the five organs—heart, lungs, kidneys, spleen, and liver. Thus to dream of war and fighting signifies a bad state of the lungs; of fire, smoke, etc., a bad state of the heart, and so on.

Modern Theory of Dreams.—Under this head we shall give an account of the principal results of modern investigations, psychological and physiological, on the nature and conditions of dreams. Respecting many points there is still considerable diversity of view. Certain questions of fact yet remain unanswered, the reason of this being the inaccessibility of dream-phenomena to accurate and adequate observation. Further, owing to the divided condition of psychological principles, the explanation of dreaming assumes very different forms with different writers. On the one hand there are those who conceive the mind as an independent spiritual substance, which employs the body as its instrument, but is not dependent on this. With these, dreams will naturally wear the aspect of products of some spiritual faculty or faculties which are not involved in the sleep of the body and the senses. At the other extreme are those who regard mental phenomena as an outcome of bodily changes, as a refined result of physical processes. By these, dreams will be regarded as given off, so to speak, by the various organs of the body during sleep. Midway between the spiritualist and materialist hypotheses is the scientific view in its narrower sense, namely, the doctrine that the mental and the bodily are perfectly dissimilar regions of phe-

nomena, which are yet connected in such a way that bodily events appear as the conditions of mental events. In the following account of modern dream-theory we shall confine ourselves for the most part to the last stand-point, though indicating here and there how the other theories of the relation of mind to body lead to divergent conclusions.

On the very threshold of our inquiry we are met by a much-disputed question—What is the relation of dreaming to sleep? Is dreaming an indication of imperfect sleep which must cease as soon as the higher nervous centers reach a complete repose? Is it, on the other hand, something wholly spiritual and independent of sleep as a bodily condition? Here we have two different views arising from different theories of the relation of mind and body. These distinct views of the subject have commonly appeared as answers to the question of fact—Are we when asleep always dreaming? This question was first raised by philosophers in connection with certain conceptions of the soul and its activity. Descartes, who regarded thought as of the essence of personal existence, was naturally led to maintain that the mind is always thinking. "I am," he says, "I exist, that is certain; but for how long? as long as I think; for perhaps even it might happen that if I ceased wholly to think I should cease at the same time wholly to exist (*Meditation* ii.) Among the Cartesians the proposition, the mind is always thinking, became a leading tenet. Locke argues against this supposition. He contends that in sleep men do not always think, or they would be conscious of it. If it is asserted that they dream but they forget it, he replies it is "hard to be conceived" that "the soul in a sleeping man should be this moment busy a-thinking, and the next moment in a waking man not remember nor be able to recollect one jot of all those thoughts." To suppose that in sleep the soul thinks apart from the body

involves the absurdity of a double mind, and is further contradicted by the irrationality of dreams (*Essay*, book ii. ch. i.). Locke was answered by Leibnitz in the *Nouveaux Essais*, who upheld the Cartesian affirmation, and maintained that during sleep the mind has always some "little perceptions" or "confused sentiments," though, according to his doctrine of unconscious perceptions, these need not become objects of conscious attention. That we never sleep without dreaming is further maintained by Kant in his *Anthropologie*, by Jouffroy and others. In his *Lectures on Metaphysics*, Sir W. Hamilton argues fully for the same idea. He says that during sleep the mind "is never either inactive or wholly unconscious." He seeks to refute the argument of Locke, that we ought to remember our dreams, by calling attention to the fact that the somnambulist has no recollection of his dream, and that persons who betray in their expression and utterance the fact of dreaming retain no recollection of the state. He further holds that the continuity of dreaming is proved by the fact that whenever we are suddenly roused from sleep we find ourselves dreaming.

While metaphysicians have thus in the main affirmed the continuity of dreams, those who regard mental phenomena as invariably connected with bodily conditions have for the most part viewed dreaming as only an occasional accompaniment of sleep. By some, indeed, dreaming is viewed as confined to the transition state from sleeping to waking, though this view is now rejected by physiologists no less than by metaphysicians. It is true that the great rapidity of dream-thought has been proved, *e.g.*, by the experience of Lord Holland, who fell asleep when listening to somebody reading, had a long dream, and yet awoke in time to hear the conclusion of the sentence of which he remembered the beginning. And this takes off from the value of Hamilton's argument that

we always find ourselves dreaming when awakened, for such dreaming may clearly be an incident of the transition state. Yet the other facts emphasized by Hamilton, as well as the results of Maury's experiments, to be spoken of presently, show that we may dream when soundly sleeping. On the other hand, we cannot, it is certain, directly prove that we are always dreaming during sleep. Many physiologists are disposed to regard dreaming as the accompaniment of some slight disturbance, whether arising from the lower organs or from an undue excitability of the brain and its nervous connections; and according to this view the continuity of dreaming would seem to be an improbable supposition. To the physiologist the idea of perfectly unconscious sleep presents no difficulties. The results of experiment show him that the lower bodily (vegetative) functions are independent of cerebral activity; and the phenomena of swooning, the effects of anæsthetics, etc., familiarize him with the temporary suspension of the conscious activity of the brain. Hence the view commonly adopted by physiologists seems to be that dreaming is only an occasional incident of sleep. See, the article on "Sleep and Dreams" by Dr. Carpenter in Todd's *Ency. of Anat. and Physiol.* At the same time certain physiologists, as Sir H. Holland (*Chapters on Ment. Physiol.*) and Sir Benj. Brodie (*Psychological Inquiries*), are disposed to think that dreaming is the rule and not the exception.

The question whether we are always dreaming during sleep leads up naturally to the inquiry into the causes or conditions of dreams. This question has been approached from different sides. On the one side, metaphysicians have sought to account for dreaming by some simple theory of a suspension of certain mental faculties. On the other side, writers have tried to explain dreaming as a result of simple bodily operations. We will just glance at one

or two of these simple hypotheses. A common view among metaphysicians is that the nature of dreaming is amply explained by the absence or suspension of the will. The importance of the cessation of the will's action, has been emphasized by Dugald Stewart (*Elements of the Phil. of the Human Mind*, vol. i. chap. v. sect. 5). Stewart does not mean that the will is wholly dormant in sleep, but that it loses its hold on the faculties. By this supposition he seeks to account not only for the incoherence but also for the apparent reality of dream-images. That the absence of the normal processes of volition, especially as involved in attention, constitutes one important factor in the explanation of dreaming seems to be admitted by all writers,—for example, Dr. Darwin (*Zoonomia*), Sir Benj. Brodie, Dr. Carpenter, and M. Alf. Maury (*Le Sommeil et les Rêves*). It is doubtful, however, whether this simple hypothesis explains all that Stewart refers to it. Maury objects to Stewart's theory that the will does not wholly lose its command of the bodily organs, etc., in dreams.

While great stress has thus been laid by some writers on this negative condition, the suspension of will, others have sought to construct a simple theory of dreaming by supposing the unimpeded action of some special mental faculty. Thus Cudworth (*Treatise concerning Eternal and Immutable Morality*) reasons, from the orderly coherence of dream-imaginings and the novelty of their combinations, that this state of mind arises from the action of "the fantastical power of the soul," and not from "any fortuitous dancings of the spirits." A very curious theory of dreaming as depending on a particular circumscribed faculty of the soul is to be found in Scherner's *Das Leben des Traumes*. Dreaming is a decentralization of the movement of life. In waking consciousness the central force, the ego spontaneity, is supreme,—in dreaming the activity of the ego becomes purely receptive.

The central ego is now merely the point about which the peripheral life plays in perfect freedom. Thus the will (the spontaneous ego) is suspended, and thought loses its categories. On the other hand, the imagination now freed from the ego reaches its perfect unrestrained function. And this function is seen in the symbolic representation both of the bodily parts and of the mental stimuli which influence consciousness in sleep. A similar conception of the action of the creative fancy in dreaming is adopted by Dr. Johannes Volkelt (*Die Traumphantasie*.)

In addition to these simple metaphysical and psychological theories of dreaming, there are to be found no less simple physiological hypotheses. Among these we may take the opinion of Hobbes (*Leviathan*), that the imaginations of dreams all proceed from "the agitation of the inward parts of a man's body," the disturbance of which parts, owing to their connections with the brain, serves to keep the latter in motion. Another simple physiological hypothesis for explaining dreams is offered by Schopenhauer. According to this writer, the exciting causes of dreams are impressions received from the internal regions of the organism through the sympathetic nervous system. These impressions are afterward worked up by the mind into quasi-realities by means of its "forms" of space, time, etc.

This simple and "geometric" method of explaining dreams, though it may be valuable up to a certain point, must necessarily fail to account for all the phenomena concerned. As we have shown in our preliminary description of dreams, their contents vary within very wide limits, and cannot therefore all be referred to one or two simple principles, whether mental faculties or body stimuli; also, it is by no means safe to affirm of any mental function that it is universally absent in dreams, since the second mental processes, as Sir H. Holland and M. Maury point

out, enter in very unequal degrees into different dreams.

A full and exhaustive theory of dreaming would seem to include several distinct lines of inquiry. Among these there are three which have already been well defined by recent writers on the subject. The first relates to the sources of dream-imaginings, or the stimulations which are the immediate causes of these. The second question has to do with the order or form of dream-combinations, and seeks to determine the conditions of the peculiar arrangements, simultaneous and successive, which are observable in dreams. The last problem is that of accounting for the objective reality, and generally for the intensity and impressiveness of dream-fancies.

In briefly opening up each of these lines of inquiry we shall seek to keep in mind the variable as well as the constant features of dreaming; also we shall proceed as far as possible, according to that double method of study, the psychological and the physiological (subjective and objective), which offers itself to those who accept the idea of a perfect parallelism between mental and bodily events.

(A) *The Sources of Dream-Materials.*—The numerous images which make up the ever-renewed current of a dream appear sometimes to come from the internal depths of the mind itself. In other cases, as even the ancients recognized, they depend on a stimulation of the brain arising from varying conditions of the bodily organs. According to the view that all mental events have their physical accompaniments, the first class of imaginings must also be referred to certain conditions of the brain and nervous system. These various sources of dream-activity are roughly classified by Hartley in his *Observations on Man*. Dream-images, he tells us, are deducible from three causes:—(1) impressions and ideas lately received; (2) present state of the body (especially the stomach and

the brain); (3) association. The large part played by bodily states in our dream-life is recognized not only by physiologists, as Maury, but also by those who ascribe dreams in part to occult spiritual faculties, as Scherner. By help of the results of recent researches we are able to improve a little on Hartley's classification. The exciting causes of dream-images fall into two main classes:—(I.) peripheral, and (II.) central stimulations. The latter arise in the outlying parts of the nervous system, namely, the organs of sense, the muscular apparatus, the internal bodily organs, together with the external portions of the nerves connected with these. Central stimulations are such as arise mainly, if not entirely, within the encephalic region. These again are either (α) direct, or (β) indirect. The first depend on the condition of the nerve-elements acted upon, and the unknown influences (possibly connected with the condition of the circulation) brought to bear on these at the moment. The indirect stimulations arise as a result of some preceding excitation in a connected region of the brain. The former underlie the apparently spontaneous imaginings of dreaming, as well as those which are the echo of a recent waking experience. The latter are the physical counterpart of images or ideas called up by association with preceding images or thoughts.

(I.) Among peripheral stimulations are to be noticed (α) those which arise from the action of external objects on the organs of sensation. Recent researches show that these may play an important part in dreams. Dr. Beattie speaks of a man who could be made to dream about a subject by whispering into his ear. Experiments were made by M. Giron de Buzareingues (*Journal de Physiol.* tom. viii.) as to the effects of external impressions on dreaming. Thus, by leaving his knee uncovered during sleep, he dreamt he was traveling in a diligence (where knees are apt to get

cold). The most elaborate experiments bearing on this point have been carried on by Alf. Maury, with the help of an assistant. The latter produces some external stimulation while the experimenter sleeps; he is then wakened up so as to record the dream immediately resulting. By this means important results were reached. When, for example, his lips were tickled, he dreamt that he was subjected to horrible tortures—that pitch plaster was applied to his face and then torn off. Sensations of hearing, smell, and taste were also followed by appropriate though greatly exaggerated images. Wundt (*Physiologische Psychologie*) thinks that cutaneous sensations, arising from the varying pressure and temperature of the bodily surface, are frequent excitants of dream-images. (β) Along with such objective sensations must be reckoned subjective sensations which arise in the absence of external stimuli, and which have as their physical basis certain actions in the peripheral as well as the central regions of the nerves. Of such are the visual images (*Schlumberbilder*) seen by J. Müller, Goethe, Purkinje, and others, when the body is disposed to sleep. These are called the dream-chaos by Gruithuisen, since they are supposed to form the raw material of dreams. Maury gives a full account of these phenomena, which he terms “hypnagogic hallucinations,” and which appear to include not only visual images, but also subjective sensations of sound, touch, etc. He attaches great importance to the action of these subjective sensations in dreams. The predominance of visual imagery in dreaming appears to be connected with the great activity of the organ of sight and its consequent excitability. It is to be added that one can only roughly distinguish these subjective sensations, which involve the peripheral regions of the nervous system, from images supposed to be confined to the central regions. (γ) The conditions of our muscles during

sleep, which somehow convey impressions to the brain, affect consciousness, and so influence dreaming. To this source we must refer the active phenomena of dreams, as running, flying, resisting, struggling, etc. It is probable, as Wundt remarks, that the movements of the body during sleep, as those of breathing and the extensions and contractions of the limbs, give rise to dream-fancies, and painful conditions of the muscles due to an awkward position of the limbs may also serve to excite images. (δ) Among the most frequent excitants of dreams are organic or systematic sensations connected with the varying states of the internal bodily organs. The prominence given to this source of dreaming in ancient and modern systems of medicine has already been referred to. States of the stomach, lungs, heart, secretory organs, teeth and gums, etc., are, as we all know, powerful provocatives of dreams. Owing to the close connection of dreams with these organic conditions they may serve as important elements in the diagnosis of bodily disease. Thus M. Macario (*Du Sommeil, des Rêves, et du Somnambulisme*) recognizes among the morbid class of dreams those which are “prodromic,” or premonitory (e.g., a dream of sanguinary conflict before hæmorrhage), as well as those which are symptomatic of existing bodily and mental disorders.

(II.) We pass to internal or cerebral excitations. Under (a), the direct excitations, are to be included all dream-ideas which do not arise from bodily stimuli or through association with preceding feelings and ideas. It seems fairly certain that many of our dream-images are thus occasioned by a kind of “automatic excitation” of the cerebral regions. The dreams which clearly arise from an after-effect in the brain of recent perceptions, especially those of the previous day, appear to illustrate this process. Also, many of the images which correspond to persons and scenes supposed to be long since for-

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gotten may be due to some such local automatic cerebral "sub-excitation." Maury distinctly recognizes this factor in dream-stimulation. It appears from experiences recorded by him that by means of these automatic central excitations images may sometimes be called up of objects which have never been distinctly perceived, and which yet have left a trace of their action on the cerebral substance. (β) The indirect central stimulations include, no doubt, a large number of our dream-fancies. When once a starting-point is reached, whether through a peripheral or a central automatic (direct) excitation, the nervous connections which answer to mental associations provide a vast range of new cerebration. It is to be added that the very same causes which excite particular cerebral regions to automatic action must affect other and connected parts in a less degree, producing a powerful predisposition to activity. Hence it is to be supposed that links of association which are insufficient to restore an idea to consciousness in the waking state may suffice to do so in sleep.

(B) *The Order of Dream-Combinations.*—Dreams are commonly said to be incoherent, and this is no doubt frequently the case. On the other hand many dreams appear to simulate orderly arrangements of objects and successions of events. It must follow that no simple theory, such as that the mind has lost the forms of thought—as space, time, and causation (which, as we have seen, is contradicted by Schopenhauer)—will cover all the facts. The absence of volition and voluntary attention goes far to throw light on dream-combinations. In dreaming, as Maury observes, attention, instead of dominating the images which present themselves, is itself dominated by these. At the same time, as we shall see presently, the action of attention, though no longer controlled by the will and directed to some practical end, plays an important part in dream-construction. In order, if pos-

sible, to get at the laws of dream-structure, we may roughly divide dreams into two classes:—(α) the disconnected and incoherent, and (β) the coherent.

(α) The want of coherence in disorderly dreams appears to arise from the play of association acting on all the heterogeneous and disconnected elements supplied by peripheral and central (direct) stimulation at the time, there being no volitional control (dominating attention) to interfere with the process. Supposing that these two primary sources are continually sending forth new and disconnected images to the dream-consciousness, and that owing to the extreme excitability of the brain during sleep numerous paths of association open themselves up in connection with every such image, we may see how it is that objects group themselves and events succeed one another in such a chaotic manner. It is not correct to say that we here dispense with the "forms" of space and time; objects are viewed in space, and events "intuited" in time, it is only that the particular positions of things in space and time are overlooked. On the other hand, it is true that there is in these loosely-threaded dreams, if not in all dreams, a suspension of the reasoning process by which objects are intuited in a causal relation. In these dreams, then the mind is passive, and consciousness is made up of a flux of images and feelings which is not analyzed and rationalized as it is in the normal processes of waking perception.

(β) Let us now consider the more coherent class of dreams. These, as we have seen, have by some been accounted for as the products of some occult power of the soul, as the "fantastical power" of Cudworth and the symbolic plastic fantasy of Scherner. There is no doubt that in many of the more elaborate and pictorial of our dreams a result is reached very similar to the products of the waking imagination. Can

this operation be analyzed into simple processes? First of all, the images, however disconnected their corresponding objects may be, group themselves in a certain arrangement. This process would be described by psychologists of the Kantian school as the superposition on the dream-materials of certain mental forms. On the other hand, it may perhaps be explained as a result of association. When two orders of impression—for example, the sight of the human form and the sound of a human voice—have been habitually associated, there arises what may be called a general associative disposition to connect some variety of one order of impression with any particular variety of the order which happens to present itself to the mind; and so, when dreaming, the mind is disposed to add to images of color certain relations of space, position, magnitude, etc., to images of human beings some form of the appropriate human actions, relations, etc. By this means the intuitive clearness and completeness of our dream-imaginings may largely be accounted for. It is to be added that these general associative tendencies do not determine what particular relations or actions are to be attributed to the images of sleep. These latter depend on the particular circumstances of the moment, as, for example, the locality of the optic fibres involved, the varying excitability of the central regions, etc.

In this factor of our dream-constructions the mind seems to be wholly passive. We have now to turn to a second influence, which involves to some extent the active side of the mind, namely, the play of attention under the influence, not of the will, but of certain vague emotional impulses. The chief of these are the feeling for unity, and the instinct of emotional harmony. First of all, there seems to be a tendency in the more orderly dreams to bring new images into some intelligible connection or relation of unity with

the pre-existing ones. This vague impulse, acting through the processes of expectation and attention, becomes selective, leading to a detention of those members of the ever-renewed flux of images which are fitted to enter into the dream-scene as consistent factors. In certain cases, indeed, this process seems to rise to something like a conscious voluntary exertion. We occasionally remember that we strove in our dream to discover a consistency in the variegated and confused scene presented to consciousness. Secondly, the unity of dream-structure is largely determined by the need of emotional harmony. A large part, if not all, of our dream-fancies are attended with a feeling of pleasure or of pain. Now when a certain state of emotion has been excited in the mind, there is a tendency to reject all ideas which conflict with this feeling, and to accept any which harmonize with it. The emotion controls the movements of anticipation and of intellectual attention, so that suitable ideas are at once recognized and detained. The unity of our most complex dreams appears to arise very largely from this source. In dreams described by Scherner, Volkelt, and Wundt the successions of imaginary events are clearly strung together by a thread of emotion, as joy, terror, and so on. The commonest example of such a dominating emotional tone in dreaming occurs when there is a current of pleasurable or painful feeling contributed by the condition of some of the internal organs of the body. These bodily sensations become the basis of complex groups of images, each new scene being connected with some analogous shade of feeling, "bodily" or "mental."

(C) *The Objective Reality and Intensity of Dream-Imaginations.*—These are explained by Hartley by two circumstances,—first, the absence of any other reality to oppose to the ideas which offer themselves; and secondly, the greater vividness of the visible ideas which occur in dreams

as measured by the corresponding waking ideas. This last fact may, he thinks, be partly accounted for by an increased heat of the brain. As already remarked, Dugald Stewart explains the reality of dreams through the suspension of the ordinary action of volition. In waking life, he says, we distinguish objective impressions from ideas by finding that the former are independent of volition, while the latter are dependent on the same. Hence, in dreaming, when the will no longer controls ideas, these are mistaken for realities. The chief influences here concerned appear to be included in Hartley's theory, though the circumstances emphasized by Stewart may be a secondary element in the case. That the reality of dream-images depends in large part on the absence of external impressions has been recognized by most recent writers. Among others M. Taine (*De l'Intelligence*) dwells on the function of external sensation as a corrective to internal imaginations, keeping these below the illusory stage. External impressions are distinguished from ideas in the waking state, in part at least, by their greater intensity. When this relation is no longer recognized by reason either of the ideas acquiring preternatural vividness or of the sensations being withdrawn, illusion follows. Waking hallucinations depend on the first circumstance, dream-illusions on the second, perhaps also on the first as well. This leads us to the reflection that during sleep the ideas arising in consciousness undergo an increase of absolute as well as of relative vividness. That is to say, they are in themselves more intense states of consciousness than waking ideas. This seems to point, as Maury observes, to an increased excitability of the nervous substance in sleep. This same circumstance, too, helps to account for the preternatural impressiveness and the exaggeration which meet us in dream-life. If the brain is during sleep peculiarly excitable it will follow that all sensational

stimuli, external and internal alike, will produce an exaggerated result. Thus the intensity of sensations will be augmented, and their volume, and so the apparent magnitude of dream-images be increased. Again, if in dreaming the stream of fancies be a rapid one, if images simultaneously and successively crowd in on consciousness, we may understand how space and time may appear to swell to unusual proportions. Once more, the peculiar excitability of the brain will manifest itself in an exaggeration of all feeling. Slight bodily discomforts, for example, will be transformed, as in Maury's experiments, into huge sufferings, and so locally circumscribed bodily sensations of pleasure may expand into preternatural forms of emotional delight.

We are now perhaps in a position to explain the symbolic function of dreams so much emphasized by Scherner. He considers that our dream-fantasy habitually represents the seat of bodily sensations under the symbol of a house and its parts, and the silent processes of thought as the audible conversation of living persons. The latter remark is probably correct, and its truth follows from a consideration of the close association between thought and audible speech. The former observation is surely an exaggerated statement, as has been shown by his friendly critic Volkelt. Yet though bodily sensations do not as a rule reveal themselves under the symbol of a building or mass of buildings, they undoubtedly do appear in consciousness disguised and transformed; and the reasons of this are plain. Even in the waking condition we have but a vague consciousness of the seat of the bodily sensations, and in sleep this can hardly be present at all. In addition to this, the exaggerating influences just referred to must tend to disguise the real nature of bodily sensations, and so to remove all consciousness of their locality. Hence bodily sensations do as a rule clothe themselves in a dis-

guise appearing under the form of emotional experiences. And the particular pleasurable or painful images selected, which will vary with the individual's emotional nature and experience, will be apt to recur as a "symbolic expression" of this variety of bodily feeling. It will follow, too, from the predominance of visual ideas in dreams, that these emotional fancies will commonly take the shape of alluring or alarming visual perceptions.

Dreaming is a subject of great interest by reason of its points of contact with other mental conditions. Thus the common suspension of many of the higher processes of emotion, thought, and volition suggests an analogy between the dreaming state and the instinctive stage of mental growth as observable in children, primitive men, and the lower animals. This aspect of dreams has been treated by Maury.

Again, dreaming has many curious resemblances to the mental states of the insane. The differences which mark off dreaming from these states have already been given. The resemblances between them are no less important. In the illusory intensity of its internal images, in the rapidity of its flux of ideas, and in the wildness and incoherence of its combinations, the dream stands very close to the whole class of hallucinations and illusions of waking life. In truth, a systematic psychological treatment of dreams must connect them with other forms of illusion. This is done, for example, by Wundt, who refers all these groups of phenomena to an increased excitability of the sensory regions of the brain. Maury seems disposed to regard dreaming as the incipient stage of a pathological mental condition of which somnambulism, insanity, etc., are more fully developed forms. Among other writers who have discussed dreams in relation to these other abnormal states of mind are Macario (*op. cit.*), Brierre de Boismont (*Les Hallucinations*), J. Moreau (*Du Haschisch et*

d'Aliénation Mentale), also Sir H. Holland, and Dr. Carpenter (*Mental Physiology*).

ASSOCIATION OF IDEAS.

BY PROF. GEO. CROOM ROBERTSON.

ASSOCIATION OF IDEAS OR MENTAL ASSOCIATION, is a general name used in psychology to express the conditions under which representations arise in consciousness, and also is the name of a principle of explanation put forward by an important school of thinkers to account generally for the facts of mental life. The more common expression, from the time of Locke, who seems to have first employed it, has been Association of Ideas; but it is allowed or urged on all hands that this phrase contains too narrow a reference; association, in either of the senses above noted, extending beyond ideas or thoughts proper to every class of mental states. In the long and erudite Note D**, appended by Sir W. Hamilton to his edition of *Reid's Works*, and offered as a contribution toward a history of the doctrine of mental suggestion or association, many anticipations of modern statements are cited from the works of ancient or mediæval thinkers, and for Aristotle, in particular, the glory is claimed of having at once originated the doctrine and practically brought it to perfection. Aristotle's enunciation of the doctrine is certainly very remarkable. As translated by Hamilton, but without his interpolations, the classical passage from the tract *De Memoria et Reminiscentia* runs as follows:—

"When, therefore, we accomplish an act of reminiscence, we pass through a certain series of precursive movements, until we arrive at a movement on which the one we are in quest of is habitually consequent. Hence, too, it is that we hunt through the mental train, excogitating from the present or some other, and from similar or contrary or coadjacent. Through this process reminiscence

takes place. For the movements are, in these cases, sometimes at the same time, sometimes parts of the same whole, so that the subsequent movement is already more than half accomplished."

The passage is obscure (leaving open to Hamilton to suggest a peculiar interpretation of it, that may be noticed in connection with the elaborate doctrine of association put forward by himself, as if to evince the shortcomings rather than the perfection of Aristotle's), but it does in any case indicate the various principles commonly termed Contiguity, Similarity, and Contrast; and, though the statement of these cannot be said to be followed up by an effective exposition or application, it quite equals in scope the observations of many a modern inquirer. Zeno the Stoic also, and Epicurus, according to the report of Diogenes Laertius (vii. § 52, x. § 32, overlooked by Hamilton), enumerated similar principles of mental association. By St. Augustin, at the end of his long rhapsody on the wonders of memory in book x. of his *Confessions*, it was noted (c. 19) that the mind, when it tries to remember something it knows it has forgotten has, as it were, hold of part and thence makes quest after the other part. Meanwhile and later, Aristotle's doctrine received a more or less intelligent expansion and illustration from the ancient commentators and the schoolmen; and in the still later period of transition from the age of scholasticism to the time of modern philosophy, prolonged in the works of some writers far into the 16th century, Hamilton, from the stores of his learning, is able to adduce not a few philosophical authorities who gave prominence to the general fact of mental association—the Spaniard Ludovicus Vives (1492–1540) especially being most exhaustive in his account of the conditions of memory. This act of justice, however, once rendered to earlier inquirers, it is to modern views of association that attention may fairly be confined.

In Hobbe's psychology so much importance is assigned to what he called, variously, the succession, sequence, series, consequence, coherence, train, etc., of imaginations or thoughts in mental discourse, that he has not seldom been regarded, by those who did not look farther back, as the founder of the theory of mental association. He did, indeed, vividly conceive and illustrate the principle of Contiguity, but, as Hamilton conclusively shows, he reproduced in his exposition but a part of the Aristotelian doctrine, nor even this without wavering; representing the sequence of images, in such states as dreams, now (in his *Human Nature*) as casual or incoherent, now (in *Leviathan*), following Aristotle, as simply unguided. Not before Hume, among the moderns, is there express question as to a number of distinct principles of association. Locke had, meanwhile, introduced the phrase Association of Ideas as the title of a supplementary chapter incorporated with the fourth edition of his *Essay*, meaning it, however, only as the name of a principle accounting for the mental peculiarities of individuals, with little or no suggestion of its general psychological import. Of this last Hume had the strongest impression, and thinking himself, in forgetfulness or ignorance of Aristotle's doctrine of reminiscence, the first inquirer that had ever attempted to enumerate all the modes of normal association among mental states, he brought them to three—Resemblance, Contiguity in time and place, Cause and (or) Effect. Without professing to arrive at this result otherwise than by an inductive consideration of instances, he yet believed his enumeration to be exhaustive, and sought to prove it so by resolving Contrast—one of Aristotle's heads, commonly received—as a mixture of causation and resemblance. Viewed in relation to his general philosophical position, it must always remain a perplexing feature of Hume's list of principles, that he specified Causa-

tion as a principle distinct from Contiguity in time, while otherwise the list has no superiority to Aristotle's. Hume's fellow-countrymen, Gerard and Beattie, in opposition to him, recurred accordingly to the traditional enumeration; and, in like manner, Dugald Stewart put forward Resemblance, Contrariety, and Vicinity in time and place, though he added, as another obvious principle, accidental coincidence in the sounds of Words, and farther noted three other cases of relation, namely, Cause and Effect, Means and End, and Premises and Conclusion, as holding among the trains of thought under circumstances of special attention. Reid, preceding Stewart, was rather disposed, for his own part, to make light of the subject of association, vaguely remarking that it seems to require no other original quality of mind but the power of habit to explain the spontaneous recurrence of trains of thinking, when become familiar by frequent repetition (*Intellectual Powers*, p., 387). The counter-observation of his editor, Hamilton, that we can as well explain habit by association as association by habit, might with reason have been pointed more sharply.

Hamilton's own theory of mental reproduction, suggestion, or association, given in outline in Note D***, following the historical note before mentioned, at the end of his edition of *Reid's Works*, calls for more special notice, as perhaps the most elaborate expression yet devised for the principles involved in the phenomena of mental representation. It is a development, greatly modified, of the doctrine expounded in his *Lectures on Metaphysics* (vol. ii. p. 223, *seq.*), which in agreement with some foreign authorities, reduced the principles of association first to two—Simultaneity and Affinity, and these farther to one supreme principle of Redintegration or Totality. In the ultimate scheme he posits no less than four general laws of mental suc-

cession concerned in reproduction: (1.) Associability or possible co-suggestion (all thoughts of the same mental subject are associable, or capable of suggesting each other); (2.) Repetition or direct remembrance (thoughts coincidental in modification, but differing in time, tend to suggest each other); (3.) Redintegration, direct remembrance or reminiscence (thoughts once coincidental in time, are, however, different as mental modes, again suggestive of each other, and that in the mutual order which they originally held); (4.) Preference (thoughts are suggested not merely by force of the general subjective relation subsisting between themselves, they are also suggested in proportion to the relation of interest, from whatever source, in which they stand to the individual mind). Upon these follow, as special laws:—A, Primary—modes of the laws of Repetition and Redintegration—(1), law of Similars (Analogy, Affinity); (2), law of contrast; (3), law of Coadjacency (Cause and Effect, etc.); B, Secondary—modes of the law of Preference, under the law of Possibility—(1), laws of Immediacy and Homogeneity; (2), law of Facility. Such is the scheme: and now may be understood what interpretation Hamilton desires to put upon Aristotle's doctrine, when he finds or seeks in it a parallel relation to that established by himself between the general laws, more especially Redintegration, and his special ones. But, though the commentary of Themistius, which he cites, lends some kind of support to the position, it cannot be maintained without putting the greatest strain on Aristotle's language, and in one place it is as good as surrendered by Hamilton himself (foot note, p. 900, *b*). Nor is the ascription of such a meaning at all necessary to establish Aristotle's credit as regards the doctrine of mental association.

Thus far the principles of association have been considered only as involved in mental reproduction and

representation. There has grown up, however, especially in England, the psychological school above mentioned, which aims at explaining all mental acquisitions, and the more complex mental processes generally, under laws not other than those determining simple reproduction. Hamilton also, though professing, in the title of his outline just noticed, to deal with reproduction only, formulates a number of still more general laws of mental succession—law of Succession, law of Variation, law of Dependence, law of Relativity or Integration (involving law of Conditioned), and, finally, law of Intrinsic or objective Relativity—as the highest to which human consciousness is subject; but it is in a sense quite different that the psychologists of the so-called Associationist School intend their appropriation of the principle or principles commonly signalized. As far as can be judged from imperfect records, they were anticipated to some extent by the experientialists of ancient times, both Stoic and Epicurean (*cf.* Diogenes Laertius, as above). In the modern period, Hobbes is the first thinker of permanent note to whom the doctrine may be traced. Though he took, as has been seen, anything but an exhaustive view of the phenomena of mental succession, yet, after dealing with trains of imagination, or what he called mental discourse, he sought in the higher departments of intellect to explain reasoning as a discourse in words, dependent upon an arbitrary system of marks, each associated with, or standing for, a variety of imaginations; and, save for a general assertion that reasoning is a reckoning—otherwise, a compounding and resolving—he had no other account of knowledge to give. The whole emotional side of mind, or, in his language, the passions, he, in like manner, resolved into an expectation of consequences based on past experience of pleasures and pains of sense. Thus, though he made no serious attempt to justify his analysis in detail, he is undoubtedly to be classed with the associationists of the next century—Hartley and the others. They, however, were wont to trace the first beginnings of their psychological theory no farther back than to Locke's *Essay*. If this seems strange, when Locke did little more than supply them with the word Association, it must be remembered in what ill repute the name of Hobbes stood, and also that Locke's work, though not directly concerned with the question of psychological development, being rather of metaphysical or logical import, was eminently psychological in spirit, and might fairly be held to contain in an implicit form the principle or principles evolved later by the associationists. Berkeley, dealing immediately after Locke and altogether in Locke's spirit, with the special psychological problem of visual perception, was driven to posit expressly a principle of suggestion or association in these terms:—"That one idea may suggest another to the mind, it will suffice that they have been observed to go together, without any demonstration of the necessity of their co-existence, or so much as knowing what it is that makes them so to co-exist" (*New Theory of Vision*, § 25); and to support the obvious amplification of the principle to the case of the sensations of sight and touch before him, he constantly urged that association of sound and sense of language which the later school has always put in the foreground, whether as illustrating the principle in general or in explanation of the supreme importance of language for knowledge. It was natural, then, that Hume, coming after Berkeley, and assuming Berkeley's results, though he reverted to the larger inquiry of Locke, should be more explicit in his reference to association; and, not only explicit, he was original also, when he spoke of it as a "kind of attraction which in the mental world will be found to have as extraordinary effects as in the natural, and to show itself in as many and as various forms" (*Human Nature*, i. 1,

§ 4). Other inquirers were, in fact, appearing about the same time, who conceived of association with this breadth of view, and set themselves to track, as psychologists, its effects in detail.

Hartley's *Observations on Man*, published in 1749 (eleven years after the *Human Nature*, and one year after the better-known *Inquiry*, of Hume), opened the path for all the investigations of like nature that have since that time become so characteristic of the English name in psychology. According to his own statement, his attention was first turned to the subject about eighteen years before, through what he heard of an opinion of the "Rev. Mr. Gay," that it was possible to deduce all our intellectual pleasures and pains from association. Gay is known only by a dissertation on the fundamental principles of virtue; prefixed, at first anonymously, in 1731, to Archdeacon (afterward Bishop) Law's translation of King's *Origin of Evil*, wherein it was maintained, with considerable force, that by association the feelings belonging to ends may come to attach themselves to means, and give rise to action for the means as if they were ends, as seen (the instance has become a commonplace) in the passion for money-making. In this vein, but on a very different scale, Hartley proceeded to work. A physician by profession, and otherwise well versed in science, he sought to combine with an elaborate theory of mental association a minutely detailed hypothesis as to the corresponding action of the nervous system, based upon the suggestion of a vibratory motion within the nerves thrown out by Newton in the last paragraph of the *Principia*. So far, however, from promoting the acceptance of the psychological theory, this physical hypothesis proved to have rather the opposite effect, and it began to be dropped by Hartley's followers (as Priestley, in his abridged edition of the *Observations*, 1775) before it was seriously impugned from without. When it is studied in the

original, and not taken upon the report of hostile critics, who would not, or could not—at all events, who did not—understand it, no little importance must still be accorded to the first attempt, not seldom a curiously felicitous one, to carry through that parallelism of the physical and psychological, which since then has come to count for more and more in the science of mind. Nor should it be forgotten that Hartley himself, for all his paternal interest in the doctrine of vibrations, was careful to keep separate from its fortunes the cause of his other doctrine of mental association. Of this the point lay in no mere restatement, with new precision, of a principle of coherence among "Ideas," but in its being taken as a clew by which to follow the progressive development of the mind's powers. Holding that mental states could be scientifically understood only as they were analyzed, Hartley sought for a principle of synthesis to explain the complexity exhibited not only in trains of representative images, but alike in the most involved combinations of reasonings and (as Berkeley had seen) in the apparently simple phenomena of objective perception, as well as in the varied play of the emotions, or again, in the manifold conscious adjustments of the motor system. One principle appeared to him sufficient for all, running, as enunciated for the simplest case, thus: "Any sensations A, B, C, etc., by being associated with one another a sufficient number of times, get such a power over the corresponding ideas (called by Hartley also vestiges, types, images) *a, b, c*, etc., that any one of the sensations A, when impressed alone, shall be able to excite in the mind *b, c*, etc., the ideas of the rest." To render the principle applicable in the cases where the associated elements are neither sensations nor simple ideas of sensations, Hartley's first care was to determine the conditions under which states other than these simplest ones have their rise in the mind, becoming the matter of

ever higher and higher combinations. The principle itself supplied the key to the difficulty, when coupled with the notion, already implied in Berkeley's investigations, of a coalescence of simple ideas of sensation into one complex idea, which may cease to bear any obvious relation to its constituents. So far from being content, like Hobbes, to make a rough generalization to all mind from the phenomena of developed memory, as if these might be straightway assumed, Hartley made a point of referring them, in a subordinate place of their own, to his universal principle of mental synthesis. He expressly put forward the law of association, endued with such scope, as supplying what was wanting to Locke's doctrine in its more strictly psychological aspect, and thus marks by his work a distinct advance on the line of development of the experiential philosophy.

The new doctrine received warm support from some, as Law and Priestley, who both, like Hume and Hartley himself, took the principle of association as having the like import for the science of mind that gravitation had acquired for the science of matter. The principle began also, if not always with direct reference to Hartley, yet, doubtless, owing to his impressive advocacy of it, to be applied systematically in special directions, as by Tucker (1768) to morals, and by Alison (1790) to æsthetics. Thomas Brown (d. 1820) subjected anew to discussion the question of theory. Hardly less unjust to Hartley than Reid or Stewart had been, and forward to proclaim all that was different in his own position, Brown must yet be ranked with the associationists before and after him for the prominence he assigned to the associative principle in sense-perception (what he called external affections of mind), and for his reference of all other mental states (internal affections) to the two generic capacities, or susceptibilities of Simple and Relative Suggestion. He preferred the word Suggestion to Association, which

seemed to him to imply some prior connecting process, whereof there was no evidence in many of the most important cases of suggestion, nor even, strictly speaking, in the case of contiguity in time where the term seemed least inapplicable. According to him, all that could be assumed was a general constitutional tendency of the mind to exist successively in states that have certain relations to each other, of itself only, and without any external cause or any influence previous to that operating at the moment of the suggestion. Brown's chief contribution to the general doctrine of mental association, besides what he did for the theory of perception, was, perhaps, his analysis of voluntary reminiscence and constructive imagination—faculties that appear at first sight to lie altogether beyond the explanatory range of the principle. In James Mill's *Analysis of the Phenomena of the Human Mind* (1829), the principle, much as Hartley had conceived it, was carried out with characteristic consequence, over the psychological field. With a much enlarged and more varied conception of association, Professor Bain has re-executed the general psychological task in the present generation, while Mr. Herbert Spencer has revised the doctrine from the new point of view of the evolution-hypothesis. John Stuart Mill made only occasional excursions into the region of psychology proper, but sought, in his *System of Logic* (1843), to determine the conditions of objective truth from the point of view of the associationist theory, and, thus or otherwise being drawn into general philosophical discussion, spread wider than any one before him its repute.

It is remarkable that the Associationist School has been composed chiefly of British thinkers, but in France also it has had distinguished representatives. Of these it will suffice to mention Condillac, the author of the sensationalist movement in the 18th century, who professed to explain all knowledge from the single

principle of association (*liaison*) of ideas, operating through a previous association with signs, verbal or other. At the present day the later English school counts important adherents among the younger French thinkers. In Germany, before the time of Kant, mental association was generally treated in the traditional manner, as by Wolff. Kant's inquiry into the foundations of knowledge, agreeing in its general purport with Locke's, however it differed in its critical procedure, brought him face to face with the newer doctrine that had been grafted on Locke's philosophy; and to account for the fact of synthesis in cognition, in express opposition to associationism, as represented by Hume, was, in truth, his prime object, starting, as he did, from the assumption that there was that in knowledge which no mere association of experiences could explain. To the extent, therefore, that his influence prevailed, all such inquiries as the English associationists went on to prosecute were discounted in Germany. Notwithstanding, under the very shadow of his authority a corresponding, if not related, movement was initiated by Herbart. Peculiar, and widely different from anything conceived by the associationists, as Herbart's metaphysical opinions were, he was at one with them, and at variance with Kant, in assigning fundamental importance to the psychological investigation of the development of consciousness, nor was his conception of the laws determining the interaction and flow of mental presentations and representations, when taken in its bare psychological import, essentially different from theirs. In Beneke's psychology also, and in more recent inquiries conducted mainly by physiologists, mental association has been understood in its wider scope, as a general principle of explanation.

Associationists differ not a little among themselves in the statement of their principle, or, when they adduce several principles, in their conception of the relative importance of

these. Hartley took account only of Contiguity, or the repetition of impressions synchronous or immediately successive; and the like is true of James Mill, though, incidentally, he made an express attempt to resolve the received principle of Similarity, and through this the other principle of Contrast, into his fundamental law—law of Frequency, as he sometimes called it, because upon frequency, in conjunction with vividness of impressions, the strength of association, in his view, depended. In a sense of his own, Brown also, while accepting the common Aristotelian enumeration of principles, inclined to the opinion that "all suggestion may be found to depend on prior co-existence, or at least on such proximity as is itself very probably a modification of co-existence," provided account be taken of "the influence of emotions and other feelings that are very different from ideas, as when an analogous object suggests an analogous object by the influence of an emotion which each separately may have produced before, and which is, therefore, common to both." (Upon which view it obviously occurs to remark, that, except in the particular case, plainly not intended, where the objects are experienced in actual succession with the emotion common to both, a suggestion through *similar* emotions must still be presumed.) To the contrary effect, Mr. Spencer maintains that the fundamental law of all mental association is that presentations aggregate or cohere with their like in past experience, and that, besides this law, there is in strictness no other, all further phenomena of association being incidental. Thus in particular, he would explain association by Contiguity as due to the circumstance of imperfect assimilation of the present to the past in consciousness; a presentation in as far as it is distinctly cognized is in fact recognized through cohering with its like in past experience, but there is always, in consequence of the imperfection of our perceptions, a certain range within

which the classing of the present experience with past is doubtful—a certain cluster of relations nearly like the one perceived, which become nascent in consciousness in the act of assimilation; now contiguity is likeness of relation in time or in space, or in both, and, when the classing, which as long as it is general, goes easily and infallibly forward, becomes specific, a presentation may well arouse the merely contiguous, instead of the identical, from former experience. Midway between these opposed views should be noted, finally the position of Professor Bain, who regards Contiguity and Similarity, logically, as perfectly distinct principles, though in actual psychological occurrence they blend intimately with each other; contiguous trains being started by a first (it may be, implicit) representation through Similarity, while the express assimilation of present to past in consciousness is always, or tends to be, followed by the revival of what was presented in contiguity with that past.

That Similarity is an ultimate ground of mental association cannot seriously be questioned, and to neglect or discount it, in the manner of the older representatives of the school, is to render the associationist theory quite inadequate for purposes of general psychological explanation. It is simply impossible to overrate the importance of the principle, and, when Mr. Spencer, by way of supporting his position, maintains farther, that the psychological fact of conscious assimilation corresponds with the fundamentally simple physiological fact of re-excitation of the same nervous structures, the force as well as pertinence of the observation is at once evident. Nevertheless, it is one question whether a representation, upon a particular occasion, shall be evoked by Similarity, and another question what shall be raised into consciousness along with it; nor for this is there any help but in positing a distinct principle of Contiguity. The phenomena of presentative cog-

nition or objective perception on which Mr. Spencer bases his argument, are precisely those in which the function of Contiguity is least explicitly manifested, but only because of the certainty and fixity it has assumed through the great uniformity and frequency of such experience. Let the series of presentative elements, as in formal education, be less constant in composition, and less frequently recurrent, than are those aggregates of sensible impressions that, in the natural course of experience, become to us objects in space with a character comparatively fixed, and then the function of Contiguity starts out with sufficient prominence, being found as often as not to fail in determining a revival of the corresponding representative series. All the phenomena, too, of coalescence, in which a variety of elements become fused to a result in consciousness as heterogeneous as any chemical compound in relation to its constituents—phenomena that have remained the very property of the Associationist School since they first were distinctly noted by Hartley—how are these to be explained by the principle of Similarity? Involved as it incontestably is in every repeated apprehension, whether of the elements, or of the product, or of the relation between them, Similarity of itself is powerless to determine a relation the essence of which lies not more in the heterogeneous character of the result than in the diversity of the elements brought together. Nor, in order to support the claim of the principle of Contiguity to an equally fundamental position with that of Similarity, is it more difficult to find an expression in terms of physiology corresponding with the subjective process. The fact that different nerve-centers are excited together, synchronously or successively, along definite lines of connection, will leave them, being so connected, in a state of relative instability, which, other things equal, will vary in proportion to the frequency and strength of the excitation; and thus, when one of

them is, in whatever way, again aroused, the rest will tend to be re-affected also by reason of the instability that has remained. The process of psychological representation, running parallel with the nervous events here supposed, involves assimilation at every stage from and including the first; it is also constantly happening, in contiguous trains, that a break occurs at a particular stage through an express suggestion, by Similarity, of something foreign to the train. But in the one case, as in the other—alike coincident with the implicit action of Similarity, and in the pauses of express assimilation—the principle of Contiguity has a part to play, not to be denied or confounded with any other.

A minor question, also disputed, is whether by the side of Contiguity and Similarity, Contrast should be held, as by Aristotle, an independent principle of association. That things contrasted may and do often suggest each other in consciousness is on all hands allowed, but ever since Hume attempted, however infelicitously, to resolve the principle into others, its independence has not ceased to lie under suspicion. When the question is approached without prejudice, it cannot but appear strange that mental states which suggest each other because of likeness, should suggest each other because of unlikeness also. In that case anything might suggest everything else, since like and unlike conscious states are all that are possible; nay, unlike states alone are all, as there must always be some difference between any two. Now it is true, in one sense, that anything may suggest anything be it ever so unlike, namely, if the things have been once or repeatedly experienced in conjunction; but then the bond of association is the contiguity, and not the unlikeness, which obviously cannot be a ground for suggesting this one other thing more than any other thing. By contrast, however, is not generally meant bare unlikeness. Genuine contrasts, as black-white, giant-dwarf, up-

down, are peculiar in having under the difference a foundation of similarity, the two members lying within the sphere of a common higher notion, and only being distinguished the more impressively by reason of the accompanying unlikeness. Clearly, in the case of mutual suggestion, if it be not the similarity itself that is here the ground of association, it may again be Contiguity, the sharpest experience of each member of the contrast having been when there was experience also of the other; or both grounds may conspire towards the result, the association being then what Professor Bain has marked as Compound. On the whole, it must be concluded that only in a secondary sense can Contrast be admitted as a principle of mental association.

The highest philosophical interest, as distinguished from that which is more strictly psychological, attaches to the mode of mental association called Inseparable. The coalescence of mental states noted by Hartley, as it had been assumed by Berkeley, was farther formulated by James Mill in these terms:—

"Some ideas are by frequency and strength of association so closely combined that they cannot be separated; if one exists, the other exists along with it in spite of whatever effort we make to disjoin them."—(*Analysis of the Human Mind*, 2d ed. vol. i. p. 93.)

J. S. Mill's statement is more guarded and particular:—

"When two phenomena have been very often experienced in conjunction, and have not, in any single instance, occurred separately either in experience or in thought, there is produced between them what has been called inseparable, or, less correctly, indissoluble, association; by which is not meant that the association must inevitably last to the end of life—that no subsequent experience or process of thought can possibly avail to dissolve it; but only that as long as no such experience or process of thought has taken place, the association is irresistible; it is impossible for us to think the one thing disjoined from the other."—(*Examination of Hamilton's Philosophy*, 2d ed. p. 191.)

Even this statement, however, is somewhat lacking in precision, since

there never is any impossibility of thinking the things apart, in the sense of considering them as logically distinct; the very fact of association implies at least such distinctness, while there may be evident, besides, a positive difference of psychological origin, as when, in the case of visual extension, the color of the field is referred to the passive sensibility of the eye, and the expanse to its mobility. The impossibility is of representation, apart, not of logical consideration or thought. It is chiefly by J. S. Mill that the philosophical application of the principle has been made. The first and most obvious application is to so-called necessary truths—such, namely, as are not merely analytic judgments but involve a synthesis of distinct notions. Again, the same thinker has sought, in the work just cited, to prove Inseparable Association the ground of belief in an external objective world. The former application, especially, is facilitated when the experience through which the association is supposed to be constituted is understood as cumulative in the race, and transmissible as original endowment to individuals—endowment that may be expressed either, subjectively, as latent intelligence, or, objectively, as fixed nervous connections. Mr. Spencer, as before suggested, is the author of this extended view of mental association.

For a detailed exposition of the psychological theory of the Associationist School, the reader is referred to the works of its latest representatives named above. The question is still under discussion, how far the theory avails to account for the fact of intelligence, not to say the complex phases of mental life in general in all their variety; nor were the theory carried out farther than it has yet been by any one, and formulated in terms commanding more general assent than any expression of it has yet obtained even from professed adherents, is it likely to be raised above dispute. Yet it must be allowed to stand forward with a special claim to the scientific character; as already in his time Laplace (who, though an outsider, could well judge) bore witness, when, speaking of the principle of association (Contiguity) as applied to the explanation of knowledge, he declared it *la partie réelle de la métaphysique* (*Essai phil. sur les Probabilités, Œuvres*, vol. vii. p. cxxxvii.) If in the physical sciences the object of the inquirer is confined to establishing laws expressive of the relations subsisting amongst phenomena, then, however different be the internal world of mind—however short such treatment may seem to come of expressing the depth and fulness even of its phenomenal nature—a corresponding object is as much as the scientific psychologist can well set to himself. The laws of association express undoubted relations holding among particular mental states, that are the real or actual facts with which the psychologist has to deal, and it becomes a strictly scientific task to inquire how far the whole complexity of the internal life may receive an explanation therefrom. Understood in this sense, Hume's likening of the laws of mental association to the principle of gravitation in external nature is perfectly justifiable. It is to the credit of the associationists to have grasped early, and steadily maintained, such a conception of psychological inquiry, and, whatever their defects of execution may have been or remain, their work retains a permanent value as a serious attempt to get beyond barren description of abstract mental faculties to real and effective explanation. The psychologists that, in the related point of view, have earned the title of the Analytical School, from holding before their eyes the exemplar of the method of the positive sciences, are precisely those that have fastened upon the principles of association as the ground of mental synthesis; and, till it is shown that the whole method of procedure is inapplicable to such a subject as mind, their conception is entitled to rank as a truly scientific one.

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The recent revival of hypnotism compels every medical man to give some thought to the matter, and to ask the question whether the therapeutic effects are not outweighed by the physical effects of hypnotism, the diminished individuality of the patient, and the great scope which such practices afford for the perpetration of crime. All these questions are very fairly discussed in the work before us. We recommend a careful perusal of the above work to all our professional brethren, that they may realize, to some extent, the gravity of a question that will soon be propounded to them.—*Occidental Medical Times* (San Francisco).

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